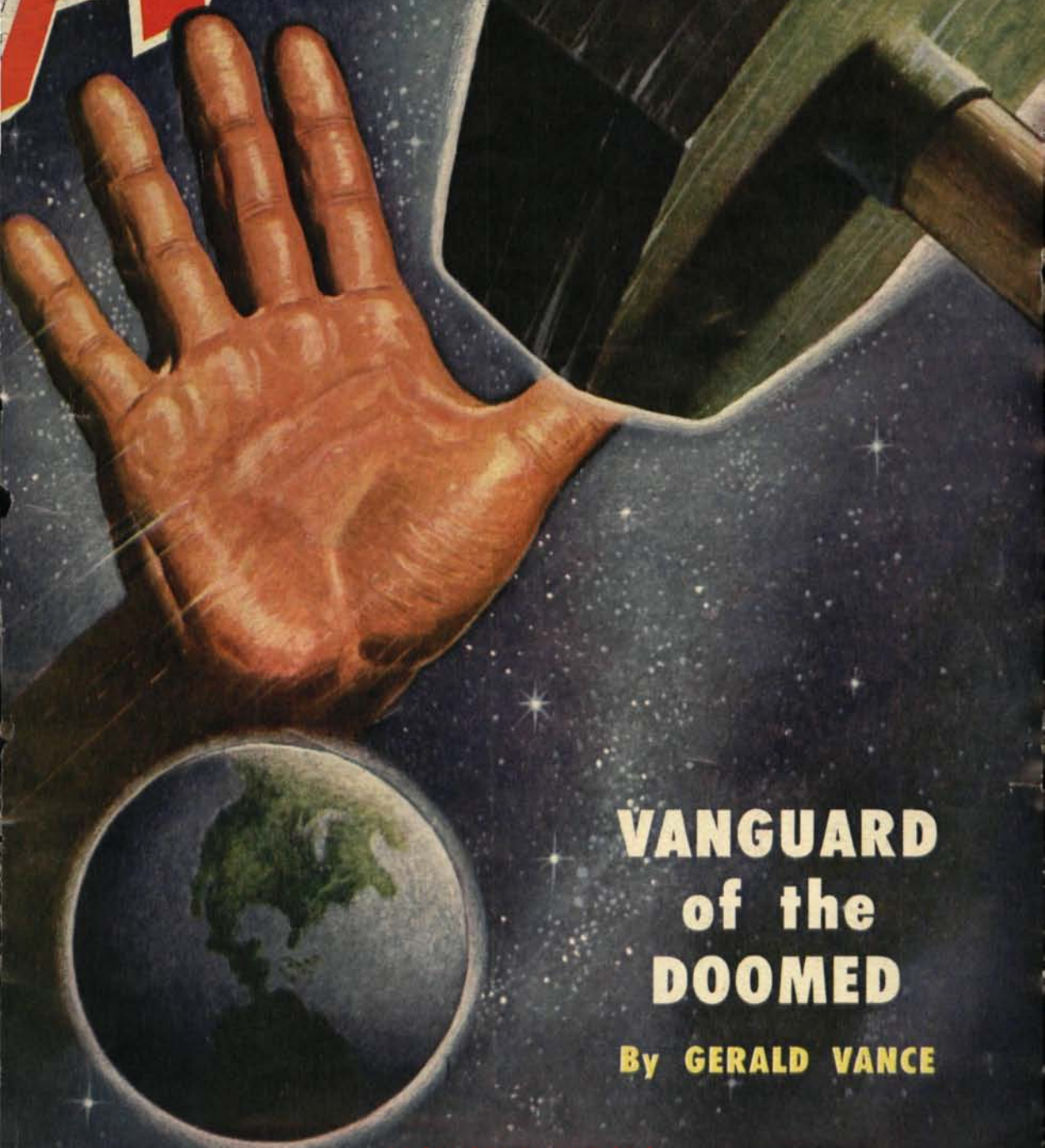


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Published monthly by ZIFF-DAVIS PUBLISHING COMPANY at 185 North Wabash Ave., Chicago 1, Ill. New York Office, 366 Madison Ave., New York 17, N. Y. Entered as second class matter June 3, 1947 at the Post Office Chicago, Illinois under the Act of March 3, 1879. Additional second class entry, Holyoke, Massachusetts. Subscription: in U.S., Canada, Mexico, South and Central America and U.S. Possessions \$2.50 for 12 issues, all other foreign countries \$3.50 for 12 issues. Subscribers should allow at least two weeks for change of address. All communications about subscriptions should be addressed to the Director of Circulation, Ziff-Davis Publishing Company, 185 North Wabash Ave., Chicago 1, Ill.



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They had only a tiny knife to stave off certain death—and it was in the hand of a whimpering coward!

Cover painting by Robert Gibson Jones, suggested by
a scene from "Vanguard of the Doomed"

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The

OBSERVATORY

..... *by the Editor*

ABOUT a month ago one of our readers gave us a suggestion which, at the time, seemed pretty sensible. He had read one of our columns in which we bemoaned the lack of fresh story material in the manuscripts sent to us by aspiring—and seldom perspiring—writers.

WHY NOT, he asked, take a look at some of the fiction offered in the amateur science-fiction magazines—the so-called “fanzines”. According to him, a better than fair percentage of the stories contained the very thing we were crying for: new ideas or at least new twists to old ideas. He went on to point out that some of the most honored names in the professional sf magazines had first appeared in these amateur publications.

AS WE SAID, the suggestion sounded reasonable. So we dug into “The Club House” files, selected at random fifteen or twenty fanzines and spent the better part of two days going through them in search of a few rookies who might show enough promise for a tryout in the big leagues.

WE CAN TELL you now, it was a mistake and a waste of time...and we say that with much regret. The fact that a large percentage of the fanzines were mimeographed or hectographed and consequently almost impossible to read has nothing to do with our reaction. When you consider that most are brought out and distributed at a loss, that only a boundless enthusiasm and a real love for science fiction makes them possible at all—then you’ll understand why few of them are even planographed, let alone actually printed on regular presses. Too, all material is donated—and the truism that “you don’t get something for nothing” was never more apt.

IT DIDN’T take us two days to learn we weren’t going to find any embryo Bradburys or McGiverns in the pages of the fanzines. But we did find a great deal of material in them that was really fascinating. For instance, we came across three separate articles denouncing *Amazing Stories* for using lightly clad females on its covers—and in all three cases, the covers

of those fanzines displayed completely undraped feminine forms! Somebody is being—well, let’s be polite and call it “inconsistent”.

MANY OF the editorials in the issues we read suffered from a kind of self-conscious cuteness—although there were enough along serious and intelligent lines to keep that from being a generalization. Also, some of the so-called “scoops” in the news-items columns were utterly false, such as the statement that “...RAP (Ray Palmer)...didn’t survive his accident of several months ago.” This, it seems to us, is lazy reporting, and we trust the editor won’t mind our saying so. Palmer, we’re glad to report, is very much alive and well on his way to complete recovery.

THIS IT seems, is on its way to being a review of fandom publications—something we had not intended. What we did intend was a report to our reader-friend that his tip about the fanzines was, unfortunately, of no value to us. But before we close the subject, we would like to get in a word or two of praise for such publications as Bob Tucker’s “Bloomington News Letter” and James V. Taurasi’s “Fantasy-Times”. These two stood head, shoulders and torso above the others, both from the standpoint of appearance and editorial matter.

AS THIS column is being written, a lot of noise and confusion is going on around us. Filing cabinets, desks and crates of books are being dragged out of the office and loaded into waiting trucks. Twice, we’ve had to beat off over-zealous moving men intent on yanking the typewriter from under our fingers. The reason for all this: *Amazing Stories* and *Fantastic Adventures* are being moved to our New York offices, effective November 15, 1950. We make the move with mingled emotions: regret at pulling up roots after residing over twenty years in Chicago; a feeling of anticipation over new surroundings and new experiences.

SO, IN WRITING to either magazine, please address your letters and manuscripts to us at 366 Madison Avenue, New York 17, N. Y. We’ll be there—too! —HB

The Beast that Ravaged a World of Men & Women

AND BROUGHT THE STIGMA OF SHAME INTO THE
HOMES OF A WHOLE CONTINENT

Shocking, incredible
intimacies re-
vealed, for the
whole world
to see and
shudder
at!



SECRETS
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LISTEN TO THIS!

At the crux of his career, Hitler sickened with a mysterious malady. The Reich's best doctors agreed that only psychoanalyst Kurt Krueger could help him.

The sick man did not believe in psychoanalysis, and let Dr. Krueger come to him only when told that it was his sole chance for recovery.

After a cursory examination, Krueger gave his decision. "I'll try to cure you," he said, "if you'll answer truthfully all questions I ask you. They'll involve your most private acts and thoughts."

Hitler resisted, but the doctor was quite firm and had his way. The book

"I WAS HITLER'S DOCTOR"

is the 320-page story of what followed, the record of the most daring excursion ever made into the sexual aspects of the paranoid human ego.

Word by word, chapter after chapter, the reader takes part in this journey of the world's supreme madman—a journey with only one counterpart in *Life* and *Literature*—the descent of Dante into Hell.

Writing with the passion for truth and fact-finding of the scientist, Dr. Krueger takes his patient back to his childhood love of his young mother and hate of his aging father, his early degradations, his relations with the town idiot, and his attitude towards his sisters—especially the wayward one he never mentioned to anyone else.

He brings out Hitler's young girl fixation, his case of *chorus girl* fantasy, and shows why he married only when it could not be expected of him to consummate his marriage.

Such records are usually sealed in secret files for professional reference only. But as he continued to treat his monstrous patient, three things dawned on Dr. Krueger:

1. His life was in danger. 2. The world's life was in danger. 3. The public safety comes before medical ethics.

Dr. Krueger's escape to America and the publication of his book followed as matters of course.

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has ever so taken hold of the mind of the average reader before whose eyes—as he makes his way through those fires—history suddenly comes to life!

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But we have here something much more exciting and important.

In *I Was Hitler's Doctor* we have the confessional record of the man who combines in himself the most obvious moral and intellectual weaknesses of our time—the man who more than even Genghis Khan, was personally responsible for the destruction of a whole world.

I Was Hitler's Doctor is a terrifying mirror which Nature tauntingly holds up before us, challenging us to look at it—**IF WE DARE!**

"Hitler flows into the madness of this age and

THE MADNESS OF THIS AGE

flows into Hitler," writes Dr. Arvin Enlind of the U. S. Army Medical Reserve in one of the book's three revealing introductions.

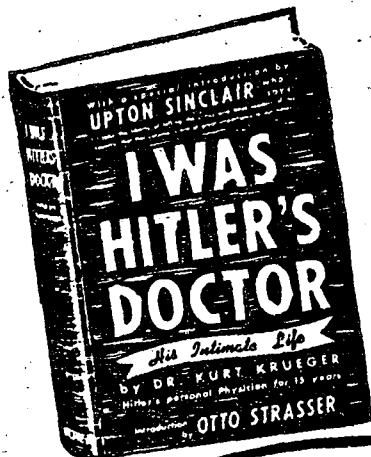
The other two introductions are by Otto Strasser who knew both Hitler and his doctor, and world-famous novelist and critic Upton Sinclair.

UPTON SINCLAIR: "I take the liberty of telling book critics and readers that this volume is one of great importance to our time; it deserves to be read and studied by every adult man and woman in the Western Hemisphere."

N. Y. POST: "As a shocking document it certainly can claim parity with *The Confessions of St. Anthony*."

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"You've got one minute," Brad said grimly. "Either stop it or I'll stop you—permanently!"

VANGUARD of the DOOMED

By Gerald Vance

Was it chance alone that sent this meteor streaking earthward—or did an alien power direct it as an opening bid for conquest?



“W F18W... CALLING WC33M... WF18W calling WC33M... WF18W calling WC33M...”

He repeated the call over and over into the microphone, a pleading note in his voice. But the loudspeaker remained silent. It had been silent all evening. He had repeated his call at half-hour intervals, but there had been no answer.

There had been no answer for a week.

Frowning at the silent loudspeaker, Bradley Dunn lighted a cigarette. He thought back over the nightmare events of the past week, and he wondered if they formed the reason for her silence. He had learned little about the girl in the brief month of their short-wave radio acquaintance. He knew that her name was Faye Manning, that she seemed to be a radio ham like himself—but that was about all.

Faye Manning.... A voice from a short-wave radio loudspeaker. A voice belonging to a girl he had never seen.

Yet that voice had formed a picture of her in his mind. It had told him things about her that she had never

put into words. It was soft, cultured, breaking frequently into clear, silvery laughter. It held no affectation, no coyness or pretense. It contained warmth and sincerity, a quick intelligence that carried her easily over a wide range of knowledge.

Her voice further told him that she was an attractive girl, even though it seemed unlikely that an attractive girl would indulge in a hobby as sedentary as short-wave radio. She had the youth and vitality, the self-confidence and zest for life that went with good looks.

In three years of short-wave radio broadcasting Dunn had learned a lot about voices. But in those three years he had never encountered a voice quite like Faye Manning's. It held an inexplicable magnetism, a challenge. It was a voice that both revealed and concealed. For there was also an odd yet persistent quality of mystery about her. She avoided speaking of herself or her surroundings, somehow always managing to keep their conversations on an impersonal basis.

There were times when she had seemed downright furtive—conspiratorial. Her radio contacts with him had been brief, hurried, made in a low-pitched tone as though she wished to avoid being overheard.

THE LAST TIME he had spoken to her—almost exactly a week ago—there had been a restrained excitement in her words, a hidden tension... a hint of dread.

"Something has happened, Brad," she had said. It was one of the few occasions she had used his first name, both having begun addressing each other by their first names only a short while before. "I can't explain, but it's very important. This set is going to see a lot of use, and so I may not be able to keep in touch with you for a while. Please try to understand."

He had pressed for an explanation, trying desperately to prevent losing contact with her, even temporarily. His existence had come to center about his talks with her, and the thought of having them interrupted had been as unpleasant to face as that of giving up such a vitally necessary function as sight.

"What is it, Faye?" he had asked. "Is there something I can do?"

"I'm afraid not. In fact, I don't know if I'd want anything done. This thing that's happened... well, it's important, Brad. In a lot of ways. I'll have to sign off now. I'll get in touch with you later, if I can."

"Faye, wait! Please. If there's something seriously wrong—"

"I'm sorry, Brad," she had hurriedly broken in. "I really must sign off."

He had not heard from her since.

He crushed out the cigarette with sudden violence and ran a hand through his thick brown hair. Loneliness and discontent showed in the pucker between his hazel eyes, in the downward curve of his wide mouth. His features were mobile and sensitive, clashing with the rugged strength that lay in his wide cheekbones and the angularity of his jaw.

He turned away from the radio set in a surge of restlessness, and abruptly he was aware of the silence that filled the bungalow, a silence that seemed to settle most heavily in this particular room. He ran a bitter gaze over the littered workbench near the short-wave apparatus, over the tool cabinet and the tier of laden shelves beside it, over the studio couch and the large, overflowing bookcase against the opposite wall. The familiarity of the room mocked him. It was a reminder, a symbol of the emptiness of his life. He was twenty-eight, an electronics engineer, considered a valuable employee by his superiors, but for him existence had not yet tak-

en on real meaning.

She had brought a needed brightness into his surroundings. Her soft voice and silvery laughter had been a bridge to a more vivid and interesting world. An immaterial bridge, yet one he might have crossed. He told himself again that he should have asked for her address, should have made an attempt to see her. Certain things she had said indicated that she lived in the same city, or at least sufficiently close to it to do something about meeting her personally.

But he had hesitated to suggest a meeting at too early a stage. It had seemed wiser to wait until they knew more of each other, until they knew what to expect when they met face to face.

HER CONTINUED silence weakened his resolution now. He was growing seriously worried. He had the vague yet persistent impression that she was in trouble of some sort, and he wanted to know if she was all right, if there was something he could possibly do. He had been unable to locate her in any of the ordinary directories, but she could be traced through her radio call letters.

"Something has happened, Brad..." Her words rose in his mind again, and he wondered if the planetoid that had entered the Solar System to menace Earth had anything to do with the crisis she faced. The Celestial Hammer, as the weirdly behaved object had come to be called, had brought fear and confusion into millions of lives, and its terrible threat may easily have brought disorder into Faye Manning's. Thousands of persons had already fled the city in the past week. She may have been one of them.

But recalling something else she had said, he doubted that. *"This set is going to see a lot of use..."* The

words held no suggestion of intended flight. They held instead a hint of mystery. What sort of use could she have meant, if not that for which an amateur broadcasting outfit was intended and for which it was licensed? And if she were using her set for the proper purpose, why wasn't it possible for her to keep in touch with him?

Slumped in his chair, Dunn shook his head wearily. Mystery, questions, uncertainty, dread... He'd had enough of that during the past several months. Everyone had had enough. First the war, with the Slav-Asian Powers threatening to engulf the world—if atomic weapons did not destroy it first. Then the strangely erratic planetoid that had wandered into Earth's path, an even greater threat since it was beyond human control. Dunn corrected himself. No, not beyond human control, if a madman named Everett Stonecrest was to be taken seriously. Stonecrest claimed to be able to direct the movements of the planetoid at will. It was he who had dubbed the object the Celestial Hammer.

With an odd clarity, Dunn remembered a Bible quotation from the man's first broadcast: *"Is not my word as a fire? saith the Lord; and like a hammer that breaketh the rock in pieces?"*

It had been a clever association of ideas—incredibly clever. Few utterances in history had caught more powerfully at human imagination, human beliefs. People were tired of war, tired of the destruction, the brutality and fear that went with it. They had been seeking some hope, some reassurance...some *Sign*. In the Celestial Hammer it had finally appeared. And Everett Stonecrest had emerged as an oracle, a prophet.

Dunn straightened with sudden impatience and glanced at his watch. The shadow of Everett Stonecrest's

much-publicized yet little-known figure touched only remotely at the fringes of his own life. All that mattered to him was a soft voice that had been inexplicably silent.

HE TURNED back to the radio set and reached for the microphone. He'd make one last attempt to reach her this way. After that he'd have to try a more direct approach.

"WF18W calling WC33M... WF18W calling WC33M... WF18W calling WC33M..."

He lighted a cigarette and waited. The slow minutes passed, mockingly soundless.

No answer.

He sighed finally and crushed out the remains of the cigarette. He rose slowly to his feet. He stood looking down at the radio set for a brooding moment, then reached out to switch it off.

"Hello, WF18W! This is WC33M. Am I coming through?"

The familiar soft voice—but somehow changed. There was an unusual haste in it, a frantic urgency.

"Faye!" he said. He dropped back into the chair, groped for the microphone. "Faye!" he said again. "I've been trying to get in touch with you all week."

"I know, Brad," she returned swiftly. "I wasn't able to answer. Now please listen carefully. I have very little time, and what I'm going to say is important.... Brad, I have reason to believe that you're in real danger. It's because of your calls to me on the radio. Watch yourself, Brad. Don't trust strangers who approach you for any reason."

The complete unexpectedness of the warning shocked him. He drew a slow breath and said through stiff lips, "What's going on at your end, Faye? I don't understand this."

"It's my fault. I should have told you more about myself than I did. I've been a fool.... Brad, you've heard of Everett Stonecrest and the Celestial Hammer?"

"Yes, but what—"

"Please listen. Someone might come in at any moment, now. I work for Everett Stonecrest. I'm his secretary. This is his radio set I'm using."

"Good Lord!" Dunn breathed.

"I know what a surprise that must be," Faye went on. "It should give you an idea why I haven't been able to answer your calls. I knew about them, of course, but—I haven't enough time to explain the situation any further, Brad. What I really wanted to tell you—" Her voice ended on a gasp.

There was a silence. Dunn stared at the loudspeaker, his brows drawn together over pinched eyes.

"What is it, Faye?" he demanded tensely. "Are you all right?"

It was a moment before her answer came.

"Why, yes...yes, Brad. As I was saying, I'm sorry I haven't been able to answer your calls. I...I've been very busy."

Again her voice had changed. The difference was unmistakable. Her words were flat, deliberate—evasive.

Dunn sat numbly, conscious of a strange new atmosphere, almost as if an invisible menace peered at him out of nothingness. Was some other person listening in? Was Faye now under a...a restraint? He searched carefully for his next words.

"Faye, this Celestial Hammer situation... I hope it doesn't change things too much for you. You're not planning to leave, or anything like that?"

"No, I'll stay with Mr. Stonecrest as long as he wants me to."

Her voice held a lilt of eagerness. He was on the right track.

DUNN GRIPPED the edge of the table on which the short-wave apparatus stood. His face held a tight, strained fixedness.

He went on, "I've been wanting to see you, Faye. Couldn't you get away from your work for a while?"

"I'm afraid not. I'm really very busy, Brad. I wouldn't be able to leave the house even for ten minutes. The situation may last indefinitely." She seemed to pause. "I won't be able to use this radio set again, so it would be best if you didn't try to call me again. I hope you'll write, though. You'll remember I'm at Mr. Stonecrest's Lake Grove house." Another pause. "I've already taken up too much valuable time, Brad. I'll have to sign off. Hope your worries about me are ended. 'Bye.'"

"Yes," Dunn said. "Yes. I understand. Thanks for calling, Faye. I'll drop you a line as soon as I can. Don't work too hard—and good luck."

Silence closed down over the room once more. Dunn sat staring at the loudspeaker, still gripping the table edge.

Faye Manning—and Everett Stonecrest. Everett Stonecrest—and the Celestial Hammer. The relationship stunned him. He would never have guessed that a relationship could possibly exist. Faye Manning was a voice belonging to a girl he had never seen, about whom he knew almost nothing. Everett Stonecrest was a mysterious figure, who in the past several days had assumed legendary proportions. He had prophesied a miracle—and the miracle had taken place.

It was Stonecrest's radio set that Faye had been using. It was in Stonecrest's Lake Grove mansion that Faye was staying.

Or was being kept by force. Dunn thought of the queer change in her voice, the clever way she had re-

sponded to his cues, giving him information under the very nose of whoever it was that had evidently been listening. If he had interpreted that information correctly, Faye was in trouble of some bizarre sort. She was asking for help. That appeared to be what she had meant by saying she hoped he would write.

He knew it would be useless to take those suspicions to the police. They would require more substantial evidence before they took any action against a man of Stonecrest's importance. Stonecrest was the man who in some miraculous, inexplicable way had saved a large part of the Earth from destruction, the man whose very word kept at bay a tremendous bludgeon in the sky.

Dunn shook his head. If anything at all was going to be done to help Faye, he would have to do it. Alone. In the face of whatever danger it was she had warned him against. This danger, it seemed, had arisen because of his radio calls to her. It could become an immediate thing if he tried to reach her in person. But there were impulses that made a man willing to face danger.

THE SUDDEN ringing of the doorbell made Dunn straighten tensely in his chair. The sound seemed to have come in answer to his thoughts. Was this the threat of which Faye had warned him? It was too late in the evening for a visit by anyone he knew.

He rose slowly to his feet, listening to the doorbell ring again. He looked at the radio, hesitated, his mind racing. Then his lips flattened against his teeth, and he left the room, hurrying through the dimly lighted interior of the bungalow. He lived alone, having kept up the house after the last of his parents had gone. The bungalow had advantages an apartment lacked, pro-

viding the space he needed for tools, experiments and hobbies.

In his bedroom Dunn reached under the night table beside the bed, where he kept hidden a .45 Army automatic in a spring clip holder. He went to the front door, flicked on the porch light and peered through the door's small glass window.

There was no one on the porch. The walk that led to the street was empty of life.

A messenger, Dunn thought abruptly. Perhaps Faye hadn't been certain of reaching him by radio and had sent a telegram, or a special delivery letter. Deciding from the dark front windows that nobody was at home, the messenger had just left.

Dunn hastily unlocked the door and started down the steps toward the sidewalk. If he hurried, he could catch the messenger before—

The sudden scrape and rustle of motion came as he was leaving the steps. Senses flaring in alarm, he whirled. In the split-second before the blow fell, he saw the looming dark shape of the man who had been hiding in the shadows at the side of the porch. He saw the upraised arm, saw the glinting object gripped in the hand.

Then—a burst of light and pain and a rushing descent into darkness....

WHEN DUNN regained consciousness in the shadows at the side of the house, where his attacker evidently had dragged him, he found that the porch light had been turned off and the door closed. Gingerly touching the blood-encrusted bruise on his head, he went heavily up the steps and let himself in with his key. In the bathroom he ran cold water over his face and scalp and sent his foggy thoughts back over what had happened.

The attack didn't seem to make

sense. Someone had gone through a lot of trouble just to hit him over the head. If this was the peril Faye had mentioned, then those behind it appeared to be laying down on the job.

It was a short time later that he thought of the radio set, which he now recalled had been left turned on. He went to switch it off—and halted in angry dismay as he came in sight of the table on which it stood.

Someone had taken a hammer from the tool cabinet, had very thoroughly and deliberately beaten the set into complete ruin.

CHAPTER II

LAKE GROVE was an exclusive residential suburb within less than an hour's drive of the city. Dunn reached it in the early afternoon, driving his coupe.

He stopped at a service station on the edge of the downtown district. While the gas tank was being filled, he left the car to stretch his legs. He noticed the station attendant covertly studying him as the latter replaced the tank cap. The attendant was a lean, shrewd-faced man, around Dunn's own age. His eyes might have been curious, but they were friendly. They seemed to invite the question Dunn had been planning to ask.

"I'm looking for the place where Everett Stonecrest lives," Dunn said, as he paid for the gas. "Can you tell me how to reach it from here?"

The attendant's interest sharpened. "Sure. The house is easy to find." He deftly sketched directions. "You know Stonecrest?" he asked finally.

"I've never met him, but I'm hoping to."

"We'll, you're in for plenty of competition."

Dunn was faintly startled "How do you mean?"

"All kinds of people have been

passing through town, on their way to see this Stonecrest guy," the attendant said. "There's been loads of them every day, mostly coming in by train and bus. Newspaper reporters, scientists, religious organizations, and just plain nosey Parkers. There's a regular mob in front of Stonecrest's place, from what I hear. Police had to be sent out to keep order."

The attendant paused, shaking his head. "Beats me, the way this Stonecrest got so popular all of a sudden. Everybody talking about him, crowds of people trying to get in to see him, radio and newspapers full of stuff about him and that hunk of rock in the sky he calls the Celestial Hammer. You'd hardly know there was a war going on any more. But a week ago you wouldn't know Stonecrest was alive. Nobody knew anything about him—and as far as that goes, they still don't. Take me. I've lived here a long time, and Stonecrest's lived here even longer than that, but I don't think I've ever heard his name mentioned before that Celestial Hammer pitch of his. I don't know anybody in town who's ever seen him—and I know most of the people in town, too."

Dunn nodded his understanding. He had spent the morning looking up information on Stonecrest, and the results had been disappointingly meager.

Among the few facts he had gleaned were that Stonecrest was wealthy, past middle age, and lived alone with a handful of servants. He seemed to have no living relatives, no immediate friends. He belonged to no clubs or organizations, never attended social functions of any kind. He was rumored to have a strong interest in science and to maintain a laboratory in his home. There were numerous blank spots in Stonecrest's life that apparently were explained by exploration trips to remote and little-known

regions of the earth.

THE ATTENDANT went on, "Wish I knew what to make of this Celestial Hammer deal Stonecrest is putting over. Most of the people I've talked to really think he can control the thing. They think he's a messiah, like they say in the newspapers, that he was given a heavenly power to keep the world from being wiped out by atomic bombs. But me, I don't know. Scientists say the Celestial Hammer's a planetoid, something like the moon, only a lot smaller, and made out of common, ordinary rock, just like we got here on Earth. Sure, there's been talk about the thing being too smooth and round to be an ordinary planetoid, but that doesn't get away from the fact it's made out of rock. How can anybody control a rock? Especially a rock as big as they say the planetoid is?"

"Stonecrest did it," Dunn returned. "Not that I'm plugging for him. But Stonecrest said the planetoid wouldn't hit Earth—and it didn't. That was after most scientists said there was no hope that the Earth would escape getting hit. The only question was where."

"I know," the attendant said, shrugging. "It was luck, that's all. One of those things called a coincidence. Stonecrest took a gamble, with all the odds against him—and he just happened to be right. That doesn't mean he's been chosen by God, like a lot of people claim."

"I hope so," Dunn said grimly. "If he actually can control the planetoid...well, that's too much power for any man to have." He climbed back into the coupe.

As though on a sudden impulse, the attendant leaned detainingly in the window opening. "Look. You were in the last war, weren't you?"

"Three years," Dunn said. "Euro-

pean theatre."

"I was in Europe myself, and I usually know an ex-G. I. when I see one. It's something about the way they look and talk. And any time I can help an ex-G.I.—"

"Anyhow, if you really got to see Stonecrest, I can give you a tip. I learned a few things about his place lately. There's a side road that leads to a service drive at the back of the estate. It isn't hard to find. You just have to know where to turn off the highway."

The attendant took a pencil and a business card from one of the pockets of his uniform shirt. He sketched rapidly on the back of the card, explaining as he did so.

"Here," he said at last. "You'll have a better chance of getting in that way than at the front. You'd need a tank to get through the mob out there. The rest is up to you. Good luck. And by the way, my name's Jerry Camp."

Dunn gave his own name and extended his hand. "Thanks, Jerry. I'll let you know how I make out."

HE STARTED the coupe and continued along the highway that led through Lake Grove. Watching for the landmarks Camp had described, he presently found the side road that would take him to the rear of the Stonecrest estate.

He did not turn into it at once. A considerable distance down the highway he saw signs of a crowd. Long lines of cars were parked on both sides of the highway, and numerous groups of people were visible around them. Even at that, Dunn knew he was seeing only part of the crowd. From what Camp had told him of the locality, it was clear that the throng overflowed the road that ran past the front of the Stonecrest mansion. This road lay parallel to the one

at whose mouth Dunn had halted.

Dunn put the coupe back into motion, swinging into the gravel-paved side road. His encounter with Jerry Camp had been a stroke of luck. He hadn't guessed that a crowd would be among the obstacles he faced in attempting to learn what had happened to Faye Manning. He would have been lost in the throng as completely as a drop of water in a lake.

His sense of foreboding grew. Sight of the crowd had given him perspective on the incredible situation in which—equally incredible—he had become involved. The whole thing had seemed unreal before, unreal and distant, like a drama taking place on another world. The Celestial Hammer had seemed a fantastic, if not wholly imaginary, threat. And Stonecrest himself had been little more than a vague shadow behind the sensations of the printed page.

Even the attack of the previous night had seemed an unrelated happening. An attack, Dunn realized, that had been made principally to destroy his short-wave broadcasting equipment. The evident motive had been to silence his calls to Faye. For those calls could prove dangerous, if authorities were led to investigate the reason why they were going unanswered.

The situation was no longer unreal, no longer distant. He was caught up in it, being swept along by its living current.

The crowd had given him a fresh view of something else—the vast importance of the Celestial Hammer in human affairs and the sinister power latent in Stonecrest's apparent control of it. The crowd, Dunn realized, had not gathered to mock or to show disbelief. It had gathered to seek guidance—to be led. And History showed repeatedly that it was upon the backs of their sycophantic followers that

men with even less impressive claims to leadership had climbed to dominance.

A terrible weapon in itself, the Celestial Hammer was even more potent when regarded as an answer to human hopes and beliefs. It was an embodiment of might greater than any man had ever known. A strange role, Dunn thought, for an object which in the beginning had been considered a mere tramp from space, a harmless wanderer expected to do no more than pass Earth's back fence on its return to obscurity.

ASTRONOMERS had discovered the planetoid several months before. The news of its arrival had diverted little attention from the progress of the war with the Slav-Asian Powers, a war which at the time had produced new reverses for the Western Allies. Calculations based on a study of its motion through the Solar System had indicated that it would pass Earth by a comfortably safe margin. The object itself had not been regarded as large enough to cause serious disturbances on Earth's surface while in passage.

The planetoid was described as being approximately four-hundred miles in diameter, perfectly spherical in shape, with a smooth rock surface of high albedo. Its unusual roundness and smoothness had been considered puzzling at the very start. There were theories that it was of artificial rather than natural origin. One even went so far as to suggest that the planetoid was a space ship, its hollow interior containing passengers in a state of suspended animation.

Then, as though to discredit the astronomers who had predicted with cold mathematical certainty that it would do otherwise, the planetoid changed course. Incredibly, inexplicably, it swung directly toward Earth.

The phenomenon was in utter defiance of all laws governing the motions of celestial bodies. Science was unable to account for it. Some powerful force obviously had acted upon the tremendous mass of the planetoid to cause its change in direction, but the identity of this force remained unknown.

The space ship faction among the planetoid theorists was briefly triumphant. The shift proved, so they insisted, that the planetoid contained intelligent passengers. Earth was about to be visited by members of an alien race.

Panic swept Earth's millions as a collision with the planetoid now seemed inevitable. Scientists pointed out that the object was too small to cause world-wide destruction. Earth might reel slightly under the blow, but would continue on its way more or less intact. However, if the planetoid struck a thickly inhabited part of a continent, such as the Eastern United States, devastation would result for hundreds of miles around the point of impact. The scene would be ravaged by fire and molten rock. There would be terrific storms and earthquakes, or, depending on the region, volcanic eruptions and vast tidal waves. The area immediately under the planetoid—an area some four-hundred miles in diameter—would be ground into complete oblivion.

The all-important question was, where would the planetoid strike?

Closer, the huge projectile drew—ever closer. It became clearly visible in the sky, a second moon. And with its approach a paralysis of fear gripped Earth. The bitter struggle between the Western Allies and the Slav-Asian Powers slowed to a stop. Of what use to seek victory, when in all likelihood only extinction might reward the victor? Frightened mobs fled great cities everywhere. Other mobs abandoned themselves to alco-

holic or religious frenzy.

It was upon this chaotic stage setting that Everett Stonecrest had entered to make his epic declaration.

Careful preparations evidently had been made in advance. At the cost of what was reported to be a small fortune, Stonecrest had negotiated with two major radio networks to have his broadcast relayed on a nation-wide hook-up from his home in Lake Grove. This was the first hint given that Stonecrest possessed transmitting equipment of his own. Subsequently arrangements were made between the networks and certain eager sponsors whereby any and all of Stonecrest's future broadcasts would be relayed without expense on his part.

Framed in solemn Biblical terms, the announcement had been short. Stonecrest claimed to have been given the power to save the Earth, or important parts of it, from destruction. He would prove this, he said, by halting the planetoid—which he named the Celestial Hammer—in its tracks. The proof would appear in a matter of hours.

And before the ensuing storm of skepticism and derision had time to reach its full proportions, Stonecrest's proof had made its appearance. The Celestial Hammer, which had been plunging toward Earth beyond the power of any mere words to halt, again changed course. It had swung into a stable orbit—where it now remained.

And as if to top the absolutely untoppable, Dunn thought, he himself was now speeding toward what was in effect Stonecrest's back door. What sort of a welcome would he receive?

A soft voice had brought him this far. There was still a long way to go.

PEERING down the road, he saw a large sprawling house of gray

stone taking shape through intervening trees. And parked at one side of the road, in line with the house, were several cars. A group of men were visible nearby. It appeared that others also had thought of Stonecrest's back door.

Dunn slowed the coupe. He thumbed open the glove compartment and lifted out his .45 automatic. The weapon had not been taken from him by his assailant of the previous night, perhaps having been overlooked in the darkness. He shoved the gun into a hip pocket.

He covered the remaining distance seated quietly behind the wheel. He felt the eyes of the group on him, searching and curious, as he added the coupe to the queue of cars and climbed out. An argument of some sort seemed to have been in progress, but now there was momentary silence.

Two of the watching men stood with their backs to a gate in a new-looking woven steel fence topped with barbed wire. They wore outdoor-type clothing, jackets and khaki sport hats, in contrast to the others, who wore business suits. Both were large, heavy men with hard, muscular features, a similarity in spirit rather than one of actual relationship. They had the look of men who guard the doors of bookie establishments. This was no bookie parlor, but Dunn knew they were on guard here.

Beyond the fence were spacious, green-carpeted grounds, rolling smoothly to break in a wave of carefully-kept shrubbery at the base of the gray stone house Dunn had already seen. A number of smaller buildings, among them a garage and a greenhouse, stood at a respectful distance from the main structure. The scene had the aloofness and detachment of a scene on a picture postcard.

"Another reporter, huh?" one of

the hard-featured men said. He glanced sidewise at his companion and grinned without mirth. "The way these guys keep popping up, eh, Harry?"

"You said it," Harry returned. He shook his head grimly at Dunn. "No luck, Mac. Nice idea you and the rest of these boys had, but nobody gets in this way. I been trying to sell them the fact. They won't buy."

"It isn't reasonable," one of the reporters complained. "Stonecrest is the most important guy in the world today. He's news. People want to know what he thinks, what he's going to do. We can give him free publicity. But what do we get here? The Fort Knox routine, that's what we get."

Harry shrugged. "Me and Vic got our orders. Mr. Stonecrest's got all the publicity he can handle, I figure."

A plumpish man with a pencil tucked behind his ear turned questioningly to Dunn. "Haven't seen you around before. What paper you with?"

"I'm not a reporter," Dunn said.

The other seemed disconcerted. "Oh. Well, I suppose you want to see Stonecrest, too."

"Everybody wants to see Stonecrest," another reporter put in sourly.

Dunn shook his head. "I don't."

THE GROUP stared at him with fresh interest. "That's a new one on me!" Harry exclaimed. "What're you after, Mac?"

"I want to see a girl who's staying here," Dunn said. "Faye Manning."

Harry and Vic exchanged swift glances. The expressions of both underwent an odd change, became guarded.

Harry said slowly, "Me and Vic got orders to let nobody in. And nobody gets in unless they're expected at the

house and we get told about it. We didn't get told anything about you."

"I think you will—now," Dunn returned. "Tell Mr. Stonecrest I want to see Faye Manning. Tell him I'm worried about her health, that it's very important I see her at once."

Scenting news where none had seemed forthcoming, the reporters crowded about Dunn with eager questions.

"Who's this Faye Manning. She related to Stonecrest?"

"What do you mean you're worried about her health?"

"You engaged to the girl?"

The two guards, Harry and Vic, watched the reporters with troubled eyes. Abruptly, with a gesture almost of pleading, Harry swung back to Dunn.

"Look, Mac. We get our orders from the house. You call up there and tell them what you want. Mr. Stonecrest says to pass you in, then we pass you in. Okay?"

Dunn shook his head. "It would take too long to get him on the phone—if I could get him, to start with. I've got to see Miss Manning as soon as possible. Tell Mr. Stonecrest that. Tell him if I can't talk to her, I'll talk to these reporters."

Scowling at Dunn, Harry chewed at his lip and ran a palm along the side of his leg. A dim fury seemed to struggle in his eyes. "All right," he said finally. "All right, Mac." He whirled to the gate, fumbled a key into the lock and swung one of the two gate sections open. Then he glanced back at the avid faces of the reporters. "Come on," he said to Dunn. "You go with me. If Mr. Stonecrest says to give you the heaveho, I'll have plenty of room to do it in."

He stood with angry watchfulness in the gate opening, allowing Dunn barely enough room to brush past.

Then he pushed the gate shut and swiftly set off down a gravel driveway that ran past the greenhouse and the garage beyond it. Dunn followed, lengthening his strides to keep up.

Abreast of the garage, Harry darted a look back and then turned sharply toward the concrete strip that ran along the front of the wide structure. He came to a sudden stop as Dunn, puzzled by the maneuver, turned after him. The garage was set back a few yards from the driveway. On one side the greenhouse cut off the view of those at the gate, and on the other a building beyond the garage partly blocked off the main house. No other persons were present. This part of the estate was screened and private, and awareness of that fact brought a cold alertness to Dunn.

Harry's hand came up from behind his back, holding a snub-nosed revolver. His lips were thinned against his teeth.

"You got a rod in your kick, Mac," he said in a low, flat voice. "I felt it when you went past me, at the gate."

CHAPTER III

DUNN stood utterly motionless, feeling a queer inner sinking. Harry gestured with the revolver.

"Get the rod out, Mac. Let it drop. And no tricks, if you don't want a hole in the head."

"You wouldn't shoot," Dunn said. "Not with the reporters, back there."

"You think I wouldn't, Mac? I could tell the newsies you were a nut, gunning for Stonecrest."

"That wouldn't explain why I wanted to see Faye Manning."

Harry's eyes seemed to retreat in baffled thought. Then his face became bleakly set. "I can still fade you, Mac," he said softly.

As he spoke he moved. He lunged at Dunn. The revolver rose club-like

in his hand, swept viciously down.

Dunn had been poised for action, muscles bunched and quivering, like a runner awaiting the starting gun. He moved explosively. He ducked under the blow, swung his body directly into Harry's path. The other's momentum sent both men sprawling to the concrete strip.

Dunn heaved and twisted free. As he came erect he saw Harry, on hands and knees, reaching for the fallen revolver. He lashed out with a foot, sent the gun skittering across the concrete and into the grass beyond.

Snarling, Harry shot to his feet and drove in at Dunn with a barrage of wide-swinging punches. A fist glanced off the side of his head, brought a ringing giddiness. Another blow caught him solidly in the chest, drove the wind out of him and sent him staggering back against the front of the garage.

Harry closed in, eager to finish off his victim. He was a big man, heavy-fleshed, whose muscular face showed the scars of past encounters. Dunn was the taller of the two, but younger and lighter. Harry evidently felt that his weight and experience gave him an overwhelming advantage. He pressed that advantage with reckless confidence.

Dunn felt the garage against his back as Harry's bulk loomed up before him. Desperate awareness of his danger cleared his head. Bracing himself, he kicked out with his foot. It was no time for sporting ethics. Crippling brutality was Harry's own clearly evident purpose.

Harry gasped and bent almost double, pain wiping the eagerness from his heavy features. Dunn pushed away from the garage, swung his fist in a chopping blow to the side of Harry's face. He followed through with an uppercut that half straightened the man, and then, as Harry

seemed momentarily to hang in the air, knees sagging and features blank, Dunn threw his Sunday punch. Harry went down like a bag of wet sand, lay without moving.

DUNN GLANCED around quickly, breathing hard. There were no figures in sight, no sounds of alarm. The swift and almost silent struggle had escaped attention. But Dunn knew someone might appear on the scene at any moment. He had to act swiftly if he were to reach the house without further interference.

He caught Harry under the armpits, dragged him to the greenhouse side of the garage, and from there around to the back. Harry would thus remain out of sight and out of circulation until he awoke.

Dunn ran a handkerchief over his face and brushed at his clothes. Except for a few bruises on cheek and jaw and some skinned and bleeding knuckles, he had come through the fight in good shape. His appearance was only slightly less presentable than it had been. That was important to him where Faye Manning was concerned.

Making certain that no one had as yet appeared, he returned to the front of the garage. He retrieved his hat from where it had fallen, slapped at his pocket to see if the automatic was still in place, then set off toward the main house. He avoided the driveway, walking on the grass well to one side and keeping the greenhouse between himself and the men at the rear gate.

He passed the remaining smaller buildings and strode along the side of the residence structure. There was a porte cochere entrance here, with stone steps leading up to a brass-bound oak door set between long, narrow leaded glass windows. Beyond the porte cochere the driveway swept in

a gentle curve across a broad expanse of lawn and ended at a double gate in the tall iron fence that enclosed the front portion of the grounds. Several men stood in a group just within the gate—more guards, apparently.

On the other side of the fence was a spectacle that touched Dunn with awe, even though he had been expecting it from the sounds that had reached him. A huge crowd stood peering in at the house, the buzz and murmur of voices filling the air like the growl of distant thunder. In the road beyond, all but choking off traffic, were long ranks of parked cars. Horns shrilled querulously as a thin stream of vehicles crept along the narrow lane that remained.

Abruptly his wonder sharpened. If something wrong were going on at the mansion, it was going on in the very presence of this crowd. It suggested an incredible audacity—too incredible, perhaps, to be real. Briefly he considered the dismaying likelihood that he had misunderstood Faye and was making a fool of himself in his melodramatic attempt to rescue her.

But her warning of his danger had been definite enough. A warning that almost immediately had been climaxed by the attack on him, the destruction of his radio set. And there had been Harry's unmistakable fear of the reporters, a fear that had made him act with swift ruthlessness. These things were signs pointing out a situation that was anything but normal or harmless. What could there be, in the circumstances surrounding Stonecrest and the Celestial Hammer, that could possibly explain it?

DUNN HAD by now reached the steps. He hesitated a moment, gazing up at the door, awareness sharp in him of the mystery and the threat that lay beyond it. But beyond

that door as well was the owner of the soft voice that had drawn him here. There could be no thought of turning back.

The lines of his face tightened. He went up the steps.

He found the doorbell, pressed it. He waited. As though from a vast distance he heard the deep mutter of the crowd, the drone and screech of passing cars. But he was alone, here. He was an island, withdrawn, set apart, a solitary, lonely entity that existed only for the opening of a door.

That door opened. It opened slowly, portentously, revealing a stocky man in a plain dark suit. His intelligent features had the hardness that seemed characteristic of Stonecrest's employees, but in this man the hardness somehow had a cultured quality.

The newcomer stared at Dunn. He had the expression of a person who sees the impossible and refuses to believe it.

"How did you get here?" he demanded after a moment. The question seemed the most immediate and important thing in his mind.

"Harry, let me in," Dunn said, "at the rear gate."

"Harry let you in," the stocky man echoed, spacing the words. He peered past Dunn, as though seeking Harry. His eyes were bleak. "This... well, this is irregular," he said, evidently explaining his pause. "Just who are you? What do you want?"

"My name's Bradley Dunn. I'm a friend of Faye Manning, and I'd like to see her. I've been worried that she might not be well."

"And Harry let you in on the strength of that?"

Dunn shrugged. "I happened to mention that if I didn't get to talk to Miss Manning I'd talk to the reporters at the gate. They seemed very

interested in anything I could tell them."

The other nodded thoughtfully. Then he leaned closer, his whole manner undergoing a change. He was suddenly friendly and confiding, with every appearance of being sincere.

"Mr. Dunn, I can understand that you should be worried about Miss Manning. All of us here have been caught up in events; and as a result we've lost touch with families and friends. Naturally that would lead to concern about us. But we're all safe and sound—Miss Manning included. It's just that we have a big job on our hands, a lot of problems to face." The stocky man waved a hand toward the crowd beyond the fence. "There you see part of those problems."

"Miss Manning," he went on in his confiding tone, "has her own job to do. As Mr. Stonecrest's secretary, she's had to handle thousands of letters that have poured in here. Frankly, I don't think she'd want to have her work interrupted and lose the time it would take to assure you she was quite all right.

"Don't misunderstand me, Mr. Dunn. We haven't become anti-social, or anything of the sort. We're just a dedicated group of people. A tremendous thing has happened—a thing that can change the world. We consider this thing more important than ourselves, more important than our own personal affairs."

The stocky man smiled sympathetically. "So I hope it's clear that there's absolutely nothing to worry about, Mr. Dunn. I'll tell Miss Manning you inquired about her. I'm certain she'll get in touch with you as soon as her work permits."

DUNN SHOOK his head. "I appreciate the trouble you've taken to explain the situation to me—but

I've got to see Faye Manning. I'll know she's all right when she tells me about it herself."

The other's manner changed again. His features stiffened and his warmth vanished. "I'm afraid it's out of the question. We have orders to admit no visitors, except on urgent business, and then by appointment."

"If I can't talk to Faye Manning," Dunn said deliberately, "I'll talk to the reporters, outside."

"You're bluffing. What could you possibly tell them?"

"I could tell them there was something very funny going on, here."

"Such as what?"

"Such as Faye Manning apparently being kept prisoner in this house. Such as someone knocking me out last night and wrecking my radio set, thus to keep me from using it to call Faye Manning."

The stocky man blinked. "This is too deep for me. I guess I'll have to let Miss Manning straighten you out. You can talk to her if you positively insist on it. . . . This way, please." He stepped aside in the open doorway, and Dunn strode past him into a large oak-paneled hall. The other turned very quickly as he swung the door shut, his hand darting under the lapel of his coat.

Dunn caught the motion as he was removing his hat. A great bell seemed to ring in him. Almost wildly, he threw the hat, followed it in a lunge at the stocky man. The latter had his weapon out, a small automatic, but the impact of the hat in his face confused him for just the single instant Dunn needed.

Flailing with his arm, Dunn knocked the automatic from the other's grasp. Then his full weight hit the man, pressed him back against the door. Dunn held him there as he reached back into his pocket and jerked his own automatic out. He pressed the

muzzle of the weapon against the stocky man's neck. The latter ceased his struggles, staring at Dunn in baffled fury.

Dunn backed away, probing the silence that flowed back into the hall. No alarmed voices, no approaching footsteps. So far, so good.

His questing glance fell on two telephones on a marble-topped table against one wall. He gestured at them with the automatic, returning his attention to the stocky man.

"One of those is a house phone, I think. Get someone on it. Have Faye Manning brought here. No," Dunn amended quickly. "Not here. There must be an empty room somewhere close by. Have her brought there. We'll go there and wait for her. . . . And be careful what you say over the phone. If you try to give me away—"

The stocky man smiled thinly. "What would you do if I did? There's no reason why I should co-operate."

"You're forgetting the reporters," Dunn returned. "And the cops. Trick me, and I'll make enough noise to bring them here by the truck load. I might even shoot you in the leg for spite. Not that my aim is that good. I could make a mistake and hit you in the stomach, instead. Maybe you know what a .45 bullet does when it hits a stomach."

THE OTHER considered the thought with a remote, indrawn expression. Finally he turned to the table and picked up one of the telephones.

"Careful what you say," Dunn reminded softly.

"Marty?" the stocky man said into the telephone. "This is Gillis. Bring Faye Manning to the little sitting room at the end of the entrance hall. . . . I know, but bring her anyway. At once. It's important." He

hung up.

"All right, Gillis—if that's your name," Dunn said. "Let's go." Urgency was mounting in him. It seemed incredible that the others in the house were still unaware of his presence. His luck could not last.

"This way," Gillis said tonelessly. He started toward the other end of the hall.

Dunn slipped the automatic into his jacket pocket, keeping his finger on the trigger. He followed Gillis past a broad staircase and then past a number of doors on either side. At the end of the hall Gillis opened the door to a pleasant, informally furnished room that could have been considered small only in relation to the larger rooms of the house.

Dunn motioned Gillis well back into the room before he entered. He left the door slightly open, taking up a position that would leave him concealed behind its inward swing.

"Faye Manning is the only one who comes in here," he told Gillis. "Send away whoever happens to be with her."

The other shrugged with an appearance of coolness, but his dark eyes held a baleful gleam. "It's your funeral."

"Yours could happen a lot faster than mine," Dunn said. "Don't forget that."

Slow minutes passed. The occasional shrilling of car horns drifted in faintly from the highway outside. There were other vague sounds that might have come from within the house itself. Dunn ached for a cigarette, not daring to relax his vigil long enough to light one. Gillis shifted impatiently, frowning.

Excitement stirred in Dunn as he waited. For weeks Faye Manning had been nothing more than a voice from a short-wave radio loudspeaker. A soft voice that had drawn him, haunted

him. But very soon, now, he would see her in the flesh. What would she be like? And—his wonder sharpened—what would she think of him?

FOOTSTEPS rose into audibility behind the door. Dunn stiffened and shot a warning glance at Gillis. Then the panel moved, its edge swinging toward Dunn.

A man's voice said, "Here she is, Mr. Gillis."

The stocky man nodded. "Come in, Miss Manning. . . . You can go back, Marty."

A muttered acknowledgment, and then the sound of footsteps again, retreating. The slim figure of a girl walked into Dunn's field of vision. He had only a moment's glimpse of her profile as she passed him, not knowing he was there. Then he was looking at the soft blonde curls clustered at the nape of her neck, at the tense line of her back in the simple gray suit she wore.

"Well, what is it?" the girl demanded of Gillis. Her voice was the familiar voice Dunn knew, but tight, now, defiant.

Gillis shrugged, glancing past her, at Dunn. "This isn't my party, Miss Manning."

Dunn was swinging the door closed. Startled by the sound of the closing door as much as by Gillis' glance beyond her, at Dunn, Faye Manning whirled. She stared at Dunn, her widened eyes touching the weapon in his hand.

For a moment he overlooked the strangeness of this meeting. He was aware only of the girl, aware that she stood before him at last. She was no longer a voice, disembodied and remote. The bridge had been crossed.

He was not disappointed. He felt somehow that he had known all along she would look as she did. Her blonde hair framed a small face with fine,

even features. It was a face that needed only laughter to make it beautiful, but at the moment it held bewilderment, a vague dread, and showed the effects of nervous exhaustion. Her skin looked pale and drawn, and her luminous gray eyes had dark shadows under them.

Dunn found himself walking forward, wanting suddenly to reassure her. She stepped back, a slim hand lifting to her throat. Her gray eyes were on the automatic.

He grinned impulsively as the oddness of the situation struck him. "The gun is to make Gillis behave," he explained. "I don't usually have one in my hand when introducing myself."

Faye Manning's lips parted in startled realization. Her gray eyes seemed to light. "Why, you're Bradley Dunn!" she said. "I know your voice."

"Not any better than I know yours." He smiled down at her as she abruptly came forward to meet him, her slim hand extended. He knew then that it was all right, that his life would no longer seem empty or meaningless.

She shook her head slowly, her eyes grave and steady on his. "You came all this way, you put yourself into all this trouble—and over a girl you'd never seen before."

"I knew the really important things about her," he said. "But right now we'd better get ready to—"

A sudden flicker of motion off to one side made him turn sharply. Gillis had been standing several feet away, watching. Evidently seeing Dunn and Faye engrossed in each other, he had seized the opportunity to make a dash for the door.

Dunn swung the automatic. For an instant Gillis' back made a perfect target as he paused to fumble at the doorknob. But Dunn's finger hesitated on the trigger. Regardless of

the consequences to Faye and himself, he could not shoot a man in the back.

Then, as Dunn belatedly started in pursuit, Gillis slipped through the door, jerked it shut. Dunn heard a metallic clicking. When he reached the panel and twisted at the knob, he understood.

The door was locked.

CHAPTER IV

DUNN WHIRLED back to Faye. "We've got to get out of here! Gillis will have everyone in the house after us in another minute." He flashed a glance across the room. "The windows! They open on the garden, and we can make a run for it to the rear gate. There's only one guard there, holding off a pack of reporters. With the reporters watching, he won't try to stop us."

She nodded quickly, excitement shining in her gray eyes. Then a new thought seemed to strike her. She caught at his arms.

"Brad, if something happens—if I can't make it, you've got to go on without me. It's important, Brad—horribly important. Someone has to be able to reach the authorities and tell them what's going on here."

"I wouldn't leave you behind," he said. "Not after I've come this far to find you."

Her grip on his arms tightened urgently. "Brad, listen to me! This is more important than either of us. The safety of the United States—all the Western Allies, in fact—may depend on it."

He stared at her, dazed. "Faye, you can't mean that Stonecrest—"

"Listen! Stonecrest is an imposter. He isn't Stonecrest at all, but another man masquerading as Stonecrest. And I'm almost positive I know who that man is. His name is Max Borzeny—"

and I have reason to believe Brozeny is a Slav-Asian secret agent!"

"Brozeny!" Dunn whispered. "I've heard the name before. During the second world war, Max Borzeny was a high official in the Nazi secret police—the Gestapo. He was one of the most wanted war criminals; too, but the Allies never caught up with him."

A chill dread rose in Dunn. "If what you say is true, Faye, then Borzeny is right here, in this house. And according to certain evidence, he's able to control what in effect is the most terrible weapon the world has ever known!"

Somewhere in the house a bell rang sharply.

Abruptly aware of the precious seconds that had passed, Dunn caught at the girl's hand. "Come on! We still have a chance if we move fast enough!"

He led the way to the nearest of the windows, released the catch, pulled the window open. It was little more than a half-dozen feet to the ground. He dropped easily, then reached up to assist Faye as she swung out after him.

THEY were on the side of the house opposite the driveway. From here only the far end of the front fence was visible, and only a few persons were in sight beyond it, walking along the street. The greater part of the crowd was concentrated around the front gate. Dunn and the girl were still as much alone as though in a wilderness.

They ran toward the rear of the mansion. The smaller buildings came into sight. Beyond them was the garage, and beyond that the greenhouse which cut off the view of the grounds from the rear gate.

Dunn approached the outbuildings from the side. Once he and Faye passed them, they could cut in front of the greenhouse, to the driveway.

He turned as a man's voice called out behind him. Figures were emerging from the window through which he and Faye had fled. One of the men was pointing, and Dunn realized that he and Faye had been sighted.

He sent an anxious glance at the girl. In her skirts and high heels she was finding it difficult to keep up with him.

He caught at her arm. "Your shoes, Faye. Kick them off, quick!"

She swung to a stop beside him, obeyed hurriedly.

"They're coming after us from the house," he said. "We've got to hold our lead until we get to the greenhouse."

Her gray eyes were pleading. She was breathing fast. "Brad... if I can't make it... you've got to go on without me!"

He shook his head doggedly as they set off again. "We've got to make it together."

They passed the first of the outbuildings—and then Faye gasped. In almost the same instant Dunn saw the reason. Several men were racing toward them across the stretch of grass between the outbuilding and the one beyond it. The path to the greenhouse was being cut off.

A cold anger swept through Dunn. He was lifting the automatic toward the oncoming men, when his plunging foot came down on a depression in the turf. His ankle turned. Suddenly out of balance, he stumbled against Faye—and both fell sprawling.

Dunn hit the ground hard, felt the automatic jolted out of his hand. Frantically he pushed himself back to his feet, whirled to help Faye as she began rising.

"The rear gate!" he whispered at her. "Run for it. It's the only way, now."

She hesitated an instant, her gray eyes mournfully intent on his. Then

she was gone in a flash of silken legs.

DUNN saw that one of the approaching men, moving more swiftly than the others, was almost upon him. There would be no time to retrieve the automatic. The only thing he could do—

He lunged directly toward the onrushing figures. Crouching, he threw his shoulder into the first of the group, sent him reeling back into the others. Almost immediately there was a tangle of colliding bodies as most of the men were unable to check their rush in time. They fell heavily to the ground amid curses and grunts of pain.

Dunn pushed, kicked, twisted, fighting his way up through the tangle. He struck out as a face bobbed in front of him, felt his knuckles crunch against bone. Another man was coming at him from the side, and almost too late he dodged a swung fist. He sent a wild punch at the other's middle, was rewarded by a gasp of expelled breath. Then arms caught him around the knees, and he went down again.

Hands clutched at him, fists pounded at his face and head. Desperately he struggled to keep from being overwhelmed, but he knew it was hopeless. He heard voices, was dimly aware that the reinforcements from the mansion had reached the scene. A fist struck the side of his jaw, and the world went foggy in a burst of light and pain.

From a distance he seemed to hear a girl's choked scream. And then something heavy and hard smashed down on his head. His dimming perceptions dissolved in a black nothingness.

DUNN opened his eyes in a small windowless room, lighted by an unshielded bulb in the low ceiling. A blurred face hung over him and he

blinked several times before he recognized Faye Manning. He lay on a concrete floor, and his head, he discovered, further, was pillowed on the girl's lap.

"Brad!" she said. "I was beginning to think you were dead. How do you feel?"

Knowledge of the girl's presence quickened his return to full awareness. He forced a grin. "Just seeing you, Faye, I feel fine."

He got his elbows under him, struggled to a sitting position on the floor. He squeezed his eyes shut as pain rang an anvil chorus in his head. Other pains swiftly became evident throughout his body, blending in a dull, steady ache.

He sent a glance around the room. "Where are we?"

"In one of the storerooms in the basement of the mansion." Faye hesitated, looking down at her hands. Her small face seemed even paler than before, and there were smudges of dust on her cheeks. "It's all my fault," she went on. "I tried to reach the gate, but one of the men caught me.... I'm sorry, Brad. I've brought you nothing but trouble."

He shook his head. "Getting to meet you was worth it. I'd do it all over again if I had to."

"I think I would, too, Brad."

He saw the meaning in her steady eyes, in her grave smile, and it gave him a sudden, deep feeling of strength, of reassurance. He put his hands on her shoulders, and she leaned almost tiredly against him, closing her eyes. He held her for a long moment. The situation had an odd familiarity, as though it had been repeated many times before.

He looked past the blonde head resting against his cheek, looked at the stained, concrete walls of the room. They seemed to sharpen around him, bringing him back to the problem

of survival. He released the girl, stood up, went to the low wooden door. The knob turned easily under his hand, but the door itself was securely fastened from the other side. Nothing short of an ax would open it—and guards all too likely were posted nearby.

He returned to where Faye sat watching him, pressing blonde curls away from her face with the back of one hand. He lowered himself beside her, spoke softly. "Our chances seem to depend on how much Borzeny thinks you know about the set-up, here, and his plans. And there's the matter of his identity. Does he know you've discovered who he is?"

"I think he suspects it. That's why he was keeping me prisoner."

"How did you get on to him?"

"I went into the library one afternoon, to look up some records," Faye began. "I usually did my work in another part of the house, and I don't think Borzeny expected me there. Anyway, I noticed that a panel in the wall was open, and there was a safe behind it, open, too."

HER FULL lips curved in a wry smile. "I suppose it would seem the most natural thing in the world for a woman to nose around. But I had a better reason than that. I had been growing certain that something definitely queer was going on at the house. There was too much out of the ordinary happening, too much of an attempt to keep it secret.

"Borzeny—or Stonecrest, as I thought of him at the time—explained the situation by saying he was engaged in certain important and confidential work for the government. It seemed logical enough. Borzeny can be very charming and persuasive when he wants to be. And besides, I knew he had a laboratory in the house and spent a lot of time there on experi-

ments of some sort. He even had two assistants helping him, neither of whom could speak English very well. He said they were European specialists, loaned to him by the government.

"I played along for a while. That's why I didn't tell you a lot of the things about myself, Brad; that I might have told you otherwise. I thought I was helping the government."

She smiled shyly. "You were very nice about it, Brad. It was fun, talking to you on the radio. You didn't get fresh, and you didn't pry or ask questions. You were just... well, understanding, always pleasant."

"I share the same sentiments where a girl named Faye Manning is concerned," Dunn said. "But where did you get the set you were using?"

"There was a powerful model of standard design in a small studio adjoining the laboratory. All of the real Stonecrest's experiments seem to have been with short-wave radio apparatus of new and highly advanced design, but apparently he had one set that he could use for ordinary broadcasting. He had a special room for it, too. This room opened out on a narrow side hall, and I could reach it without being seen. I knew I wouldn't have been permitted so near to the laboratory. Hardly anyone was. Borzeny and his assistants kept the laboratory locked when they weren't there, and I was careful to use the radio only when they were in some other part of the house."

Faye paused, and then went on, "My father was a radio ham, and he taught me how to twiddle the right dials. I was lonesome here, at the house, wanted someone to talk to. Borzeny always tried to discourage me from going out in the evenings—for security reasons, he said. And the few times I did go out, he had me followed. I learned about that quickly

enough. It was one of the things that convinced me something strange was going on.

"The secret experiments seemed only part of whatever this was. There was something odd about Stonecrest himself—or Borzeny, that is. He avoided meeting people and carried on most of his affairs by correspondence. He refused to see unexpected visitors, appeared suspicious of almost everyone around him. He didn't hire me to work for him until he had investigated every detail of my background. Practically all of his employees seemed to be new. I learned a short time later that he had fired all the old servants who had worked at the house."

FAYE changed position on the floor, her soft voice quickening. "The arrival of this object in the sky that Borzeny calls the Celestial Hammer seemed to bring matters to a head. There was suddenly a lot of excitement. The guards at the estate were doubled—not ordinary guards, either, but professional toughs. From the scraps of information I was able to pick up, it seemed clear that Borzeny and his assistants had found they could control the object. What they used, of course, was the special short-wave apparatus with which they had been experimenting, in the laboratory."

"So that's the explanation!" Dunn said. "I'd been wondering how control was possible."

Faye nodded. "This special apparatus evidently had been built by the real Stonecrest. The basic idea, I think, was a completely new type of radio communication. But Borzeny found he was getting signals with it—signals that came from the Celestial Hammer. No ordinary set could have picked them up. And when Borzeny signalled back, the Celestial Hammer responded by moving toward Earth.

Further experiment showed that a great deal of control was possible. Borzeny could have sent the object back into space if he had wanted to. There was no actual intelligence directing the object itself. It was like . . . well, it was like a huge machine."

"There are theories that the planetoid is a space ship," Dunn put in. "Suppose it is. A space ship with a stone hull would be practical enough, where meteors are considered. I don't know about the passengers. They might all be dead—or in suspended animation, as some persons claim. But suppose that ship were guided in its flight by radio impulses like those sent out by Stonecrest's apparatus. Perhaps to keep it from hitting a planet, or falling into a sun. If Stonecrest's set sent out impulses of the same frequency as those sent out by the guiding device, then the ship would follow those impulses. That would explain how control of the planetoid was possible at all."

He gestured. "Anyway, it's clear how Stonecrest—I mean Borzeny—obtained his supernatural abilities. Obviously, control of the planetoid gave him the idea of setting himself up as a prophet."

Faye's blonde head moved in assent. "He began using the set over which I talked to you, Brad. I could see we wouldn't be able to keep in touch any more, and I tried to let you know. Maybe I was too mysterious. You kept trying to reach me, and Borzeny grew excited over it. He said something would have to be done about you. I was afraid you were in real danger, and I warned you as soon as I had a chance to use the set again. Borzeny caught me at it. I don't know what he might have done if we both hadn't managed to give him the idea that our talk had been harmless."

"He already was suspicious of me, you see. In fact, I was practically be-

ing kept a prisoner in the house. I was locked in my room every night. I got out to radio you only because I managed to slip a wad of paper in the door catch. The reason for all this goes back to that open safe in the library.

"I investigated it. There were the usual things a person keeps in a safe. But then I came across a small steel box containing certain papers, records and newspaper clippings. All concerned a man named Max Borzeny. At the time it didn't seem to mean much. Later, thinking back over what I had seen, I suddenly realized that this Max Borzeny was actually Stonecrest—or was masquerading as Stonecrest. And there was an important official connection between Borzeny and the Slav-Asian Powers."

FAYE SHUDDERED, grimacing. "I didn't know how close to death I was in those minutes. If Borzeny had caught me searching the safe—But he didn't. Not actually. I returned things as I had found them and was working on the records I had come to look up, when Borzeny returned to the library. He looked at me, and then at the open safe—and from that moment on he took no chances with me.... It seems incredible, though, that Borzeny could somehow have taken Stonecrest's place."

"Stonecrest did a lot of traveling to remote corners of the Earth," Dunn said slowly. "Somewhere along the line he and Borzeny ran into each other. Borzeny was a hunted man, and perhaps some actual physical resemblance between Stonecrest and himself suggested the switch in identities. It's a matter of record that Borzeny spoke excellent English, and in addition he was an enormously clever and resourceful man. He had to be, to have escaped capture as long as he did. With a few changes in

Stonecrest's papers and identification, with a bit of careful forgery here and there, it wouldn't have been impossible for him to pass himself off as Stonecrest.... As for Stonecrest himself, there's no doubt but that he's dead—murdered by Borzeny."

"And it looks very much as if the same thing is going to happen to us," Faye whispered, her face gray and drawn.

Dunn placed a comforting arm about her shoulders. "Not if we play our cards right. The main thing to do is to keep Borzeny from finding out how much we know. We've got to convince him that neither of us has found out about his real identity and connections. Especially you, Faye. As for me, I'm just a dumb guy who thought your rich boss was keeping you incommunicado for romantic reasons. And I was just jealous enough to use a gun in trying to pry you loose."

"It might work," Faye said, hope struggling in her voice. "I've been careful to say nothing about how much I knew."

Dunn tightened his arm. "It has to work."

They fell silent, sitting close together on the concrete floor. The girl leaned wearily against him, her eyes closed. He felt the soft pressure of her body, and part of him was content. He had come this far to find her. That much, at least, had been accomplished. The only question now was, what lay ahead?

The silence deepened. And then, from somewhere in the distance, Dunn heard the sound of approaching footsteps. He straightened tensely, felt Faye stir beside him. Her eyes stared into his, suddenly wide and alert.

They were standing side by side when the door opened. A lumpy featured man with beetling eyebrows peered warily into the room, sent a

muttered word over one shoulder, then entered. Two other men followed. One was an obvious tough, like the first who had appeared, but the second was a well-dressed, military erect man with iron-gray hair and cold, sharply chiseled features. All held leveled revolvers.

"Mr. Stonecrest!" Faye said. "We were hoping for a chance to explain—"

"That will be enough out of you, Miss Manning," the gray-haired man returned curtly. He gestured to the lumpy-faced underling. "Get the microphone, Otto."

The other strode to one of the walls, reached into a crevice near the floor and drew out a small flat disk. He removed the wires connected to it, straightened, strode back.

The man Faye had called Stonecrest, but who, Dunn knew, was actually Max Borzeny, smiled thinly at the girl. He had pale blue eyes that held a flat, unwinking stare—eyes that hinted of a nature harsh and without mercy.

"I found your conversation very interesting, Miss Manning. That was my purpose in leaving you and this young man together, here. So, please, let there be no childish attempts to deceive me."

CHAPTER V

A CHILL emptiness filled Dunn. Borzeny's words had verified the sudden, numbing certainty that had leaped in him at sight of the microphone. Borzeny had listened in on the talk between Faye and himself, was aware they knew of his true identity. There was no longer any hope. Borzeny's cold face, the leveled guns, indicated as much.

Dunn felt Faye draw closer against him. Her gray eyes met his in a brief

glance of despair.

"All right, we know who you are," Dunn told Borzeny. "We know what you've been doing here. What do you plan to do with us?"

The imposter lifted his erect, carefully tailored shoulders in a shrug. "Dead men tell no tales, as the saying goes. Dead women, also, I might add."

"You can't get away with it," Dunn said. "This is the United States. People don't vanish here without questions being asked."

"I'm quite sure I can avoid the questions," Borzeny returned with faintly smiling calm. "I will produce witnesses who will insist they saw you and Miss Manning leave here in your car. A simple case of elopement. Nothing mysterious, nothing sinister. The car itself will be taken care of in accordance with my little arrangement."

Dunn found he was breathing fast. There was a stifled drumming in his chest. He forced himself to speak quietly.

"Just when do you intend to start making this little arrangement of yours?"

"Immediately," Borzeny said. "I am, you see, vacating this house tonight. I do not intend to return, and I wish to settle all unfinished business before I leave. I regret that I cannot allow you and the charming Miss Manning a little more time together."

Borzeny raised his eyebrows in polite inquiry. "Any further questions?"

"Yes," Dunn said. Stall, he thought. Stall. Every second was precious, now. "What are you up to, here? What do you hope to gain by your control of the Celestial Hammer?"

Borzeny's eyes lighted with a fanatical gleam. "An excellent point to raise. I shall speak frankly. I have, after all, nothing to lose. You and Miss Manning will very soon be in no position to make use of what I shall reveal. As for these men here, I can

trust them. Most of the others serve for money, but with these two it is a matter of personal loyalty."

He leaned forward slightly. His suavely deliberate manner seemed to change, to reflect a kind of fevered enthusiasm. "You ask what I hope to gain by my control of the Celestial Hammer. The answer, my young friend, is—mastery of the entire world! The Hammer is the most potent weapon that has ever existed—a weapon more potent, even, than the atomic bomb. And my control of it is absolute. I can make it obey my every command."

Borzeny paused, his pale eyes flashing at Dunn. "I can, for example, bring the Hammer down on any great city I choose—and smash that city into complete oblivion! Any city on the surface of the Earth. And I intend to do just that! My plans have been carefully made, and this very night I shall swing into action. Washington, the capital of your nation, will be first. Then will come the various atomic bomb manufacturing sites and certain military centers. The country will be completely disorganized, completely helpless!

"That is only the first step in my plans. Immediately afterward I shall destroy the capital of the Slav-Asian Powers. At present the Slav-Asians consider me an ally, but they are treacherous, and I shall take no chances with them. With the dominant nations paralyzed and my power clearly demonstrated, the other remaining nations will quickly obey my commands. I shall emerge as the ruler of the entire world!"

DIMLY Dunn was aware of Faye's fingers pressing into his arm, as though in physical echo of the shocked dread that filled him. Borzeny's scheme sounded wild—insane. But the man's control of the Celestial Hammer already had been proved beyond any

slightest doubt. And with control of the Celestial Hammer anything was possible.

Dunn's thoughts leaped frantically. Washington, the whole United States itself, was in immediate, terrible danger. Borzeny had to be stopped before he could put his plan into effect. Dunn realized he had to do something—but any move in the face of the ready guns would bring instant death.

Borzeny made a sudden gesture. "Since your questions appear to have been answered, I will now proceed to the business at hand." He took a step backward, glancing at one of the two men beside him. "You take the woman, Franz. I dislike shooting women. . . . Otto, ready!"

Borzeny lifted his gun. His cold features tightened, became intent.

Dunn had a nightmare feeling. His muscles bunched wildly—but he saw there would be no time to move. The fingers of Borzeny and his henchmen were already tightening on the triggers of their weapons.

A gun roared.

Franz stiffened, half turned, then sprawled in a limp huddle to the floor. Borzeny whirled to peer back into the dark depths of the basement, and Dunn realized now that the shot had come from there.

Another shot sounded. Something whined within inches of Borzeny's head, passing Dunn and Faye to hit a wall, beyond. Dunn didn't wait to see what happened next. He took swift advantage of his opportunity. Otto was nearest, peering through the doorway as he steadied his revolver for a shot. Dunn leaped at the man, got an arm around his neck, jerked him savagely to the floor. Before the confused Otto could put up resistance, Dunn punched him into senselessness. Then he snatched up the man's fallen gun, swung to where he had last seen Borzeny.

The other was gone. He had braved the bullets of the hidden attacker to dart through the doorway. Dunn heard swiftly retreating footsteps. Pursuit was out of the question at the moment, since it might draw the fire of the person concealed back in the basement.

DUNN WAITED. The retreating footsteps faded, were gone. Somewhere a door slammed. Silence fell.

"Hello, whoever you are!" Dunn called through the open door. "This is Bradley Dunn."

"Gillis, here!" a voice came back at once. "Everything all right at your end?"

"Borzeny's gone," Dunn said. "The two men with him are out of action."

"I'll be right with you." Gillis came trotting out of the darkness. "Miss Manning all right?"

"Yes," Faye said. "You saved our lives, Gillis. But I don't understand. I thought—"

Gillis shrugged. "Up to a point, I follow orders and ask no questions. But there was too much going on in this house that I didn't like. The way you two kids were being treated made me reach my limit. I followed Stonecrest down here—or Borzeny, as his real name seems to be—and I heard plenty. I thought he was just a rich guy using that Celestial Hammer thing to get himself a lot of free publicity. I didn't know he was a fake planning to set himself up as a dictator. I don't like dictators. And I like the old United States just as it is. Let it go at that."

Gillis looked questioningly at Dunn. "Want to make a run for the Law? Or should we try to clean house?"

"We clean house," Dunn said. "And the place to start is the laboratory. Borzeny will head there first thing. He has an idea about destroying

Washington, and we've got to stop him."

"Let's go," Gillis said simply.

Dunn picked up the revolver that the dead Franz had been using, thrust it into his belt. Then, gripping Faye's hand, he followed Gillis through the basement.

They reached a flight of stairs, mounted to the door at the top. The door was locked. Cautioning Dunn and Faye to move to one side, Gillis shot the lock away. Then he slid a fresh clip into his automatic and carefully inched the door open. The narrow hall beyond was empty, but from somewhere in the house shouts of alarm were rising.

"Come on!" Gillis said. "We've got to make a rush for it."

The narrow hall ran past a kitchen and opened out into the main hall Dunn had already seen. As Dunn and the others hurried toward the stairway at the end, the two men appeared. Sighting Dunn's group, the men lifted the guns they held.

Dunn and Gillis fired almost simultaneously. One of the men clutched at his chest and dropped. The other whirled back out of sight.

"Cover me," Gillis barked at Dunn. He crept to the end of the hall, peered around, then gestured urgently.

They reached the stairway, raced upward. As they reached the landing a gun thundered. Gillis released a gasp, clutched at his shoulder.

Dunn saw Harry at the head of the stairs. He snapped a shot at the man, missed. Harry was swinging his weapon toward Dunn, when Dunn fired again. Harry staggered, fell, rolled down the steps. He reached the landing, lay motionless.

Dunn turned to Gillis. "Can you make it?"

"Bullet went through my arm," Gillis said. "I can still pull my weight."

They continued up the steps, Gillis

insisting on scouting the way. Several men appeared in the hall below them, began to mount upward.

"Hurry!" Gillis whispered. "There's still another flight ahead of us."

THEY POUNDED up the remaining stairway, Gillis maintaining his lead. The approaching men shouted their discovery of Dunn's group, quickening their ascent like hounds that had at last sighted their quarry.

His hand gripping Faye's, Dunn followed Gillis into a dim-lit hall. Gillis pointed toward one end.

"The laboratory's down there."

Faye said suddenly, "The studio! The laboratory will be guarded, but there's a door opening into it from the studio. I don't think they'll be watching that."

"Just the thing!" Gillis said. "Quick, now!"

They raced down the hall, turned a corner. Gillis slowed, pointing out a closed door and motioning for quiet. He opened the door slowly, keeping well to one side. Then he nodded and beckoned.

With Faye close on his heels, Dunn slipped after Gillis into a small room containing expensive radio equipment. There was a door in an adjacent wall. Gillis slipped over to it, placed his ear against the panel. Then very slowly he turned the knob. He shook his head.

Somewhere below in the mansion a sudden flurry of gunshots sounded. A man screamed. Then more gunshots, making a sustained staccato thunder.

Gillis waved an imperative hand at Dunn. Joining the other, Dunn quickly saw his intention. They poised themselves several feet away from the locked door. Then, moving as one, they threw themselves at the panel in a hard lunge.

The door crashed open. Beyond

was a huge room crowded with workbenches, cabinets and machinery. Four men were present, three of them standing on opposite sides of the main doorway.

One of the men was Borzeny.

The group seemed to have been expecting something to happen, to have been eagerly awaiting it. But action had come from a totally unlooked for quarter. The men whirled in confused surprise.

"Get your hands up, all of you!" Gillis called sharply, across the room.

"Never, you swine!" Borzeny spat. He swung up his gun.

Gillis was already triggering his automatic, very deliberately. Dunn held Otto's revolver at arm's length, moving the barrel to cover the group as he emptied the cylinder in a crashing roll of shots.

Mingled thunder filled the laboratory.

Borzeny managed to get off one shot before he staggered and slid down the wall to the floor, two dark holes in his shirt over the chest. A bullet from one of his two henchmen grazed Dunn's side. Then this man stiffened, lifted a hand toward his face, dropped. The remaining man was turning toward the door, firing; when two shots caught him together, knocked him sprawling.

DUNN SWUNG to the remaining man, but he was unarmed, his hands in the air. He was elderly and bespectacled, with a fringe of white hair around an otherwise bald head. He stood with his back to a tall complex apparatus that overflowed the whole of one workbench.

Dunn hurried across the room. "This thing controls the planetoid, the Celestial Hammer?" he demanded.

"Ja, so," the other answered, his lifted hands quivering.

"You know how to operate it?"

"Ja, I know."

"Get busy, then," Dunn said. "Your job is to send the planetoid away from Earth—so far away that it will never come back. Then you're going to give me a hand in smashing this outfit to pieces. It's caused enough trouble."

The old man bent over the apparatus, flipping switches, turning dials. A low hum filled the room.

Beyond the door shots suddenly rose and were partly drowned in the crash of gunfire. Dunn glanced in despair at Gillis.

The other listened a moment longer, then strangely grinned. "It's the cops," he said. "They finally got up here. I guess I forgot to mention I called them."

They looked at each other, then suddenly grinned. They were shaking hands when Faye joined them.

DUNN SWUNG the coupe into the service station and braked to a stop, wincing a little as a twinge of pain rose from under the bandage against his side. Nestled against him, her blonde head against his shoulder, Faye stirred sleepily.

Jerry Camp approached in the clear morning sunlight. He glanced casually at Dunn, did a double-take, then grinned. "Have any luck?" he asked.

"I certainly did," Dunn said. "I promised I'd let you know."

Camp noticed Faye for the first time. His eyebrows lifted. "I see what you mean." He leaned an elbow in the window opening. "You get in to see Stonecrest? Only I heard over the radio a while ago that Stonecrest was really some other guy. There seems to have been a whale of a big fight out at his place last night. A regular army of cops showed up, and there was a lot of shooting. The cops found out that some former Nazi was making like Stonecrest, a guy the government had been hunting for years. And what do you know, but that Celestial Hammer hunk of rock acted up, too. It's swinging away from Earth, the radio says. Pretty soon it'll be gone."

Camp suddenly stared at Dunn. "Say, did you happen to have anything to do with all this?"

Dunn shrugged. With Gillis and Faye, he had spent long, exhausting hours in explaining the whole affair to police authorities. He didn't feel like rehashing it, even if briefly. The newspapers would print the story soon enough.

"I saw a little of it," Dunn said. "Right now, though, I'm on my way to get a marriage license."

"You got a good start, this early in the day," Camp said. He sent another glance at Faye. "And if I were you, I wouldn't lose any time!"

THE END

DIANETICS?

By A. MORRIS

THE NEW "science" of dianetics, which purports to be able to make men free from psychological, psycho-somatic and emotional ills which they are heir to, may have this faculty. The writer of this brief article is not ready in a position to prove or disprove their claims, though he views the matter with apprehension, primarily because it has attained such amazing popularity in so short a time.

Reliable scientific authorities are cautioning against the all-embracing claims made by the new science. In the process of making a "clear" by use of the inter-

rogator, it is possible say authorities that severe mental and emotional harm may be done. For apparently the methods of dianetics are camouflaged variants of conventional psychological procedures. It is known that laymen are not equipped to handle these matters.

Therefore it is with a desire to caution the un-initiated that this matter is brought up. Psychological analysis is not a toy and playing with the human faculties medically is dangerous. Whatever the merits of dianetics, its practitioners should make this clear.

The MAN WHO FORGOT

By Charles Creighton



It's a dangerous thing for a man to lose his memory. But in Rand's case, amnesia could be the means of saving his life . . .

HE STARTED vaguely at the closely cropped lawn, shell-blue in color. That didn't seem right.

The sky was a canopy of black in which a ball of fire rode high.

Off toward the horizon was another

body. The moon, in quarter phase with its bright crescent far brighter than it should be even at night.

Suddenly he caught a movement in another direction. A bright ball was rising above the horizon.

"Must be some kind of ship," he



Rand bent closer above the girl, feigning not to know of the figure at the door.

mumbled.

But his eyes told him it wasn't. Its outlines were too rough. It was another moon, small, very close to the earth.

"The earth!" It was a sharp ejaculation escaping from his lips. He stared at the ascending lesser moon, the larger one on the opposite horizon, the sun that was much too small in a sky that was much too black, and slowly shook his head. It was not the earth.

A puzzled frown creased his forehead. What was the earth? This wasn't the earth, whatever it was. But what was the earth? The word had risen from some depth of memory without its associations.

"Let's see," he said aloud. "The earth has a larger sun. Does it have any moons?"

He searched his thoughts without finding a definite answer. He gave up the problem of the sky and the earth and turned his attention back to his immediate surroundings.

His eyes caught the flash of something bright in a thicket of neatly trimmed shrubs. He went over to it and dragged it out. It was a suit. An emergency suit of the type worn for dropping to a planet from above its atmosphere. Not a space suit designed for working in a vacuum.

"What's it doing here, I wonder?" he thought.

He examined it curiously. Its bulky legs were zippered together. They could be unzipped for walking, but even then it would be clumsy work.

Attached to the shoulders was a harness with fine strands of cord running to a bulky pile of cloth. A parachute.

"Could I have worn it?" he asked, and in asking the question he suddenly realized consciously what had been troubling him. "I can't remem-

ber!" he whispered, surprised and troubled. "Let's see. What can I remember?"

He searched frantically for memories to tie him to the past. There was none. His thoughts could go back to ten minutes ago. That was all.

"Why?" he asked numbly.

He probed his scalp with gentle fingers. There was no sign of injury that might account for loss of memory.

"Maybe there's some identification!" he exclaimed.

He explored his clothing. He had on a loose fitting shirt of pastel blue cloth that had no mark of identification on it nor pockets that might contain something. His trousers had pockets, but they were empty. They were more than empty. They were new, and had never had anything in them.

"All my clothes are new!" he whispered.

He turned his attention to the emergency suit. It should have markings of some kind on it. Perhaps a number.

Finally he sat down on the blue lawn and gave up. There was nothing—except a vague feeling that the style of the clothing he wore was strange and subtly different from any he had ever worn before.

"So," he said tonelessly. "I can't remember my name or where I'm from—except that it's a planet called earth. And I'm not there, whatever this planet is."

A vague uneasiness began to make itself felt within him. An urge grew to put a lot of distance between him and this spot with its neatly cropped lawn and trimmed shrubs. And the emergency suit.

He looked at the thing of plastic and glassite, feeling the growth of the urge to get far away from it.

"But it's the only thing linking with the past that I have!" he protested.

From the depths of lost memory

rose a feeling of panic. A premonition of danger connected with the suit.

He drew back from it, still reluctant to leave it. Abruptly it burst into flame. The flames were blinding, the heat they threw off intense even at ten feet. There was no smoke, and shortly there was no flame. Only a scorched area of ground and some charred brush that hadn't quite burned away.

"HELLO," a cultured female voice sounded at his back.

He started slightly, his shoulders stiffening. Then he turned casually.

"Hello," he said mildly.

The girl was dressed in the same type of loose-fitting shirt and trousers that he himself wore. Her well-proportioned breasts and smoothly rounded hips utterly destroyed the effect of masculinity of her attire, however.

As his eyes came to rest on her face the word "beautiful" rose into his thoughts. But there was more than beauty. Good nature sparkled from her eyes and lurked in the corners of her lips. Her skin was a soft tan in color. Her hair, glistening brown, fell in disorder as though recently tossed about in the wind.

"What are you doing here?" he asked quickly.

"I was about to ask you the same thing," she said cheerily. "I live here. I'm Clara Valkor." She said it as though she expected the name to mean something to him.

"Clara Valkor," he said slowly. Then he frowned deeply to cover up his thoughts. "Have you ever seen me before, Clara?"

"No, I haven't," she said.

"You don't know who I am?"

"No," she said. "Should I?"

"I don't know," he said slowly. "You see, I don't know who I am either. I don't even know how I got here." He wondered why he hadn't

told her about the emergency suit.

"You mean you're a victim of amnesia?" Clara asked incredulously, her eyes widening. "Then I'd better get you to the house and call the doctor!"

"No!" he said. He was surprised at the fierce insistence in his voice. "That is," he covered up, "I've already examined my scalp. There's no injury of any kind. Nothing a doctor could do."

"That's where you're wrong," Clara said. "Very few cases of amnesia are from head injuries. Most of them are purely psychological. An escape mechanism."

"What do you mean?" he asked, feeling himself tremble.

"I mean—" Clara began. A shout interrupted her.

"Who's this and how'd he get here?" the man who had shouted a greeting asked when he came up to them.

"This is—Randolph Beecher, Karn," Clara said.

"Glad to meet you, Rand," Karn said. But his eyes as they surveyed him didn't match the warmth of his voice.

Randolph Beecher, he thought. It was as good a name as any. But why had Clara given him a name rather than telling Karn the truth? And there had been a flash of dislike in her first glance at Karn.

"Rand dropped out at my invitation," Clara was saying. "I haven't said anything about it because I—well, frankly I didn't think he would accept. He's a pretty busy man most of the time and can't take a couple of weeks off like this as a rule."

"Busy, huh..." Karn said. "At what?"

"Oh," Clara laughed lightly, "at things that would bore you to tears. He's a specialist. The history of chess. He's writing a book on it."

"Chess!" Karn said disgustedly.

Rand smiled, guessing that Clara had chosen that subject because she knew that Karn would avoid it in the future. He felt grateful to her. She had in one shrewd stroke established him as a guest and surrounded him with the protection of disinterest in his personal affairs.

But why? He darted her a questioning glance. Her expression was casual.

"So you're going to be here a couple of weeks," Karn went on. "Well, I'll see you around, I suppose. I'll run along now. By the way, what part of Mars are you from?"

"He's from Kem Junction," Clara said hastily. "And you should see his library! Would you believe it? He has over forty thousand books on chess alone; some of them dating back to the twentieth century!"

"Any good books?" Karn said. With that parting thrust he turned and strode away.

Rand watched him go, hesitating to face Clara. He felt her hand steal into his. Suddenly he was acutely aware of her presence, the magnetic attraction of her.

"Why did you do it?" he asked, turning his head and looking down at her.

"When you get better acquainted with Karn you'll know," Clara said. "He doesn't know that I know it, but he's a muspo."

"Muspo?" Rand echoed.

"Martian Union police officer. Secret police," she said, linking her arm in his. "Let's go to the house."

Rand felt beads of perspiration form on his brow and wondered why.

HE STEPPED out of the shower and began rubbing himself briskly. He paused for a second, sensing that this shower was a habitual thing with him. Another little thing to add to the many accumu-

lating, that might eventually add up to complete memory.

"Randolph Beecher," he whispered. "It isn't my name, I'm quite sure. But already I'm thinking of myself as Rand."

His thoughts went back to the previous day. Clara had brought him into the house, a huge rambling affair of sandstone, beautifully built. She had introduced him to Hans Valkor, her father. There had been others, too. So many that he could remember only a few.

"Welcome to the House of Valkor," Hans had said warmly. Rand had instinctively liked Clara's father. He was tall and sturdy, in his late fifties with thinning gray hair and a ruddy complexion. A man who had lived well and made living an art.

But Rand had sensed an undercurrent of something in Hans. He tried to analyze it now as he dressed. Was it fear? It seemed partly that, but more wariness than fear. That was it. Hans was like a man on a battle front, suspecting him yet accepting him. Ready to shake hands or fight for his life.

And the others. They had been cordial but too quiet. Reserved as though saying anything might mean trouble.

Rand shrugged off his feeling of insecurity and finished dressing. He looked about his large airy room with a feeling of pleasure. If this room was to be his for two weeks it would give him time to get his bearings and perhaps decide what to do. Whether to continue the masquerade that Clara had started or to seek help in discovering his true identity.

He went to the window and pulled back the heavy drapes to look out over the rolling landscape and up into the black sky at the small moon sailing with visible motion above.

"So this is Mars," he muttered thoughtfully. "I have no memory of

Mars. All my memories and feeling seem to be of the Earth. I must have come here in that emergency suit, dropped from a ship out in space. Why didn't I tell Clara of that? Kem Juncture! I'll have to find the library and learn a little about Mars and Kem Juncture so I'll be able to carry this off without giving myself away."

A soft knock sounded at the door.

"Come in," Rand said.

The door opened cautiously. It was Clara.

"Hi," Rand said, grinning cheerfully. "Come on in."

She entered and closed the door behind her.

"I'm still suffering from—" he began.

"Boredom?" she interrupted loudly. "After you've relaxed you won't, darling. And after you've been here for two weeks you'll forget all about your musty old chess books."

He frowned. She went to a wall and motioned for him to come over. When he did she lifted back a picture, revealing a small button.

"Microphone," she formed with her lips.

She let the picture back gently, put her arms around his neck, and kissed him.

"Mmmm," she said. "That was nice. Kiss me again darling." Her voice was intimate, inviting. She placed her cheek against his so that her lips were against his ear. "You must be very careful," she whispered so low that he could barely hear the words. "Every moment in this house you will be watched for the slightest suspicious move. After breakfast we'll go for a stroll and then we can talk again. But whatever you do don't tell anyone you've lost your memory."

Her lips caressed his cheek. Her lips sought his again. He felt her warm body against his, vibrant with life, inviting. His arms went around

her.

She drew back her head, a half smile playing on her lips. In her eyes was tenderness, love, and fear.

He released her, his thoughts whirling. Was her love an act? It seemed so, designed to lull the suspicions of whoever was watching. But if the love were an act the fear definitely wasn't.

Clara was afraid. Her father was afraid.

"Let's go down to breakfast, Rand," she said, taking his hand and leading him toward the door. "After breakfast I want to show you the grounds. They're dad's pride and joy."

KARN WAS alone in the breakfast room, eating a baked mushroom stuffed with deviled egg. He studied Rand with frank curiosity as he entered.

"How's the chess player after a night's sleep in the country?" he asked dryly.

"Never better, Karn," Rand said with an attempt at friendliness.

"Oh! A chess player?" a new voice exclaimed. It's owner, a gaunt woman with boney shoulders and wrinkled face, stood in the doorway eyeing Rand possessively.

"On vacation," Clara said warningly. "I made him promise he would neither talk nor play chess while he's here."

"But you can't do that!" the gaunt woman said indignantly. "You know my love for the game, Clara, and it's years since I've seen a chess player. You can't!"

"Why not play her?" Karn asked. "Aunt Bessie won't rest now until you do. You didn't meet Aunt Bessie last night? She was in her room all evening, I think."

"Perhaps later," Rand said uncomfortably. "Pleased to meet you, Aunt Bessie." He smiled at her. There

seemed to be a faint disappointment in her expression at his sudden surrender. He turned to the table loaded with food.

Clara was filling two plates. Rand studied the food in the hopes of finding something familiar. Odors from the steaming food taken out of steam trays were familiar, but they held no associations. Simple recognition was all they evoked.

He took the two plates and held them while Clara continued filling them. Then he followed her over to a secluded nook overlooking a picturesque section of garden beyond a narrow window.

With the first bite he found that he was very hungry. He decided that although he couldn't remember his last breakfast or any other breakfast before that, that it must undoubtedly be the finest one he had ever had.

"It's part of dad's way of life." Clara said. "Johnson, the cook, used to be chef at one of the most famous restaurants of all Mars. Dad had to buy the restaurant to get his contract and order him out here."

Others were coming in now. Rand listened to fragments of conversation in the hopes of picking up something that might mean something. There was nothing but small talk. Four were talking of playing tennis after breakfast.

"Let's hurry," Clara whispered.

"I'm through any time," Rand said. "In fact I'm finished right now."

Clara nodded and slid back her chair. Rand followed her out of the room, conscious of the curious glances that followed them. He walked beside her in silence until they were away from the house and in the center of a large area of lawn where they couldn't possibly be overheard.

"This ought to be good enough," he said abruptly. "Let's sit down here and talk. There are a lot of things

I'd like to know."

"Naturally," Clara said, stretching out lazily on her side and cupping her head in her arm. She regarded him with a smile, then became serious. "First, do you remember anything yet? Anything at all?"

"N—no," Rand said. He had been about to tell her he was sure he was from the earth. "Something's going on here," he said hastily. "What is it? Why are you and your father afraid? What's Karn to you? Who are all these other people? Why are they here? Who's aunt Bessie? Why did she want to play chess with me and then seem disappointed when I said I would?"

Clara studied him thoughtfully. "For a man with amnesia," she said slowly, "you have a particularly keen mind."

"I have, haven't I?" Rand said. "Probably it will help me get to the root of who I am eventually. That's another thing. Why didn't you want Rand to know about it? Is there something wrong with losing one's memory?"

"Did you know that Mars is planning on seceding from the interplanetary government?" Clara asked abruptly.

"I not only didn't know it," Rand said, "but I didn't know there was a planetary government. What's that got to do with my loss of memory? You ask as though that had some bearing on it."

Clara looked across the lawn moodily without answering. When she spoke it was on a different subject.

"I'd forgotten that aunt Bessie likes to play chess," she said. "Of course you'll have to keep stalling her. If you played she'd quickly realize you're no expert. If you know how to play the game at all. Do you?"

"I don't know," Rand said truthfully.

"Karn is my brother," Clara said. "I'm sure he's a muspo. Dad is a loyalist. He's firmly convinced that Mars must stay in the interplanetary government, that to secede would eventually lead to solar war. If he knew that his own son was a muspo he would—"

"He would what?" Rand asked, when she fell abruptly silent.

Clara didn't answer. She was looking off in the distance. Rand followed her gaze. He caught a brief glimpse of a man with a pair of binoculars before he disappeared behind some shrubs.

"I hope he wasn't a lip reader," Clara said, troubled.

"Who was he?" Rand asked.

"One of Karn's friends," she answered. "The house is always so filled with guests. Karn always has a couple. Dad has loads of them, mostly loyalists. He doesn't know that Karn is against him. Karn's too clever to let him catch on. He always agrees with dad when political matters are discussed."

Rand reached forward quickly and put his arms around Clara. "Here comes Karn," he whispered. "Kiss me."

Her arms went over his shoulders. Her lips sought his and lingered. Her body was tense. Finally she drew back and looked around with an attempt at being casual.

"Why, Karn isn't anywhere in sight!" she said.

"I know," Rand murmured.

She turned startled eyes back to him. When his lips sought hers again she didn't resist. Slowly her body relaxed its tenseness. Then, suddenly, she was crying softly.

"I'M GOING into town, Rand," Karn said. "Want to come along for the ride?"

Rand and Clara had just returned

to the house from their walk around the grounds and had run into Karn as they entered.

Rand hesitated.

"Go ahead, darling," Clara said. "I want to take a nap-anyway."

"Okay," Rand said, wondering why Clara was willing to let him be exposed to her brother's keen mind.

"See you when you get back, Rand," Clara said with a smile. She turned abruptly and went to the stairway leading to the second floor.

Rand followed Karn outside and discovered that a car had drawn up in front. The man behind the wheel was the one who had been spying on him and Clara with the binoculars.

He wanted to draw back, make some excuse not to go. But Karn's hand was on his arm. The car door was open. He stooped down and entered. A second later the car was in motion.

Karn sat beside him, his eyes studying him frankly, a smile playing at the corners of his mouth.

"What do you think of the interplanetary situation, Rand?" he asked abruptly.

Rand shrugged. "I don't think anything about it," he said carelessly. "Not interested, to be frank about it."

"About as interested as I am in chess?" Karn said.

"That's right," Rand said.

"I might fool you," Karn said quietly. "Maybe I know a lot about chess."

Rand swallowed loudly. He wondered why he should be so tense. "Interesting if true," he said, looking out the windows at the rolling landscape beside the highway.

"Enough," Karn said quietly, "so that I believe you are the man I've been requisitioned to find."

Rand said nothing. By great effort he was keeping his trembling from showing. He studied his reactions with

intense interest. He was beginning to sense that deep in his subconscious was something cut off from conscious contact that was listening and knowing and perhaps planning. "The real me," he decided.

Karn's chuckle interrupted his thoughts. "Still my move, eh?" he said. "Well, here we are."

The car pulled smoothly to a stop under the marquee of a restaurant. Karn got out and held the door open.

Rand thought of escape. He looked around. There was no place to run to, and even if he managed to escape he wouldn't know where to go.

He got out of the car, and suddenly he was wondering at his calm. Did it rise from subconscious knowledge? Or was it merely the product of a fatalism that conditioned him to accept what he couldn't avoid?

Karn's must know that he was unable to remember his past life, that he wasn't the chess historian Clara had claimed, and that he had come from the earth, the mother planet that Mars and Karn was planning war against. The chauffeur in the front seat had probably read his lips and gotten the whole story. Maybe Karn had checked and found his identity as Randolph Beecher was fictitious. It would be a simple enough matter for the M.U.S.P. to check on that.

And the reason Karn wasn't pointing a gun at him to prevent him from escaping must be that he knew there was no place to escape to.

So he preceded Karn into the restaurant calmly as though he were unaware that he was a prisoner about to be taken to whatever prison lay hidden in this place.

"Right on through to that door at the back," Karn said.

Rand nodded, eyeing the few customers sitting at the tables with blank expression. At the door Karn had

pointed out he paused while Karn rapped three short knocks, paused, and repeated them.

The door opened revealing a narrow hallway. Through one door came kitchen sounds. They passed several other doors.

"That door was electrically controlled," Karn explained. "There's a mike in the door frame that picked up my knock."

He stepped past Rand now and went to a door, opening it.

"After you, Rand," he said.

The room Rand stepped into was a small office. There were four desks crowded into it, and on each desk were several phones.

"A bookie joint," Karn grinned. "A real one. That's how we finance our operations, and it also gives us a ready made network of private wires for our real work."

"I don't get it," Rand said.

"You will," Karn said. "I want you to meet Aaron Vorik, our leader. Aaron, this is the man I called you about."

"Oh, yes!" the short, dark-haired man said, rising. He extended a hand in a hawk-like motion.

Rand accepted it, his thoughts mystified by the apparently warm reception. He had expected to be arrested.

"Sit down, Rand," Karn said. Aaron will explain to you what we have in mind."

Rand took a seat slowly, studying Aaron Vorik. A product of the universal melting pot, he had the non-racialness that characterizes those whose veins carry the blood of all races equally mixed. His eyes were black and extremely intelligent, his mouth large and flexible.

"It's very simple," Aaron said. "We want you to plan all the tactical details of our war of secession from Earth."

DURING THE long moment of absolute silence that followed, Rand was aware of two things. The eager, intent expressions on Karn's and Aaron's faces, and the surge of elation that rose in his mind like a flood, filling his consciousness so intensely that he felt it must show on his face.

Then, as though it were some other person across the room, he heard himself saying calmly, with a mixture of caution and modesty, "But I'm not qualified for such a task. Chess is basically similar to war and politics, but it doesn't qualify a man to deal with the intricacies of actual politics and war. Anyway, how do you know my sympathies are for the secessionists? They might be for the loyalists!"

"Nonsense!" Aaron Vorik said. "You are a master of chess. I've heard of you. The master is intrigued by the problem—not the ethics of the problem. You *cannot* refuse. Think of it—to be the master planner behind the war of worlds! To put on paper the deployment of forces in space, the attacks, the defenses, the strategy involving—not inanimate pieces on a board—but millions of men and trillions of dollars worth of materials. The timing involved! The pattern of attack against superior odds! The probing of the mind behind the enemy, and the estimation of his strategy! The challenge!"

"You say you've heard of me?" Rand asked cautiously.

"Better than that," Aaron said. He pulled open a drawer and brought out a book, tossing it with careless good humor toward Rand.

Rand caught it. The name under the title caught his startled eye. It was Randolph Beecher. And the title was "Chess Logistics."

"I've read it—since yesterday," Aaron said. "With it I could almost do the planning myself, but why should I when we can have the master

himself work on the problems involved?"

Rand only half heard. He was staring at the book in fascination. He *knew* every word in the book.

He closed his eyes. "On page fifty-six," he thought wonderingly, "there is a typographical error in the third line." Idly he opened the book to that page. The error was there!

"*I must be Randolph Beecher,*" he thought. He searched his mind for some verification, some clue that could make him sure. There was nothing except a faint whisper that he was not.

"All right," he heard himself say. It startled him. He opened his mouth to deny his own words, then closed it.

"Fine. Fine," Aaron Vorik exclaimed, jumping up and coming around his desk to shake hands with Rand enthusiastically. "Go out and order drinks sent in," he said to Karn. "This calls for a celebration."

While Karn was gone Aaron Vorik went to a desk and took out a metal box. When he opened it Rand saw that it was filled with currency.

"Take a handful," Aaron said. "From now on you don't need to worry about money. Spend a thousand a day if you want. Salt some away, just in case, if you wish. I'm doing that myself. Here." He took out a thick pile of bills and thrust them into Rand's hands.

Karn returned in time to see Rand putting the money in his pockets, and nodded knowingly. He was carrying a tray with three sparkling drinks.

Rand accepted one.

"Here's to success," Aaron said.

Rand sampled the drink cautiously. It was a strange flavor. He asked no questions.

"One thing," Aaron said, smacking his lips over the drink, "you will go on as you have been doing, to all appearances. Continue your vacation

visit at the House of Valkor. Karn will see to it that you have your own car. You can remain oblivious of the intrigue going on around you there. That's out of your province anyway. You can turn moody and start a habit of taking afternoon drives by yourself. In a few days when you've established a routine and possible suspicion has died down you can start spending a few hours here each afternoon."

Rand nodded, turning the cold glass in his hands absently.

"We'd better go now," Karn said, finishing his drink.

CLARA WAS nowhere around when they reached the house. Karn muttered something about having to see somebody. This suited Rand. He hurried to his room, grateful for the chance to do some serious thinking before he would have to see Clara.

The biggest mystery, he knew, far outweighing the utterly mad offer of Aaron Varik for him to mastermind the Martian rebellion against the Earth, was how Clara had picked the name Randolph Beecher for him. Up until Aaron had said that he had heard of Beecher he had assumed that it had just been a name that popped into her mind on the spur of the moment. Even then he had decided the name must have come from chance memory. The fact that Beecher actually was a chess expert only added to that belief. But when he had taken the book on chess and realized that he knew it far better than any casual reading in the past that was lost to conscious memory could account for, he had also realized that Clara's picking of that name couldn't be chance.

So chance was ruled out.

"That leaves—design," Rand muttered. "But, in that case, my landing at this place after dropping from a ship in outer space would also have

to be design. Possible. My trajectory could have been calculated with fair accuracy."

He studied the possibilities this gave rise to. Clara and her father seemed to be fairly important people to rate such a huge estate. Rich, to be able to buy a large and famous restaurant just to get its chef.

"Suppose," he thought, "just suppose I'm an Earth agent sent here for some reason. I couldn't act alone. I would have to have contacts, an identity, a place to stay. My contacts would get word I was coming, and when I would get here. One of them, Clara, would be on the watch for me.

"That makes sense. But then something happened that caused me to lose my memory. Maybe I fell too fast. Maybe I landed wrong and blanked out, my instincts getting me out of the emergency suit before its chemicals reacted with the atmosphere and made it burn. Or before the time fire-bomb that might have been in it to destroy it went off.

"But that would be simple amnesia. It wouldn't account for my knowledge of that chess book. It wouldn't account for the way Clara accepted my amnesia. If it were simple amnesia and she's the contact I was supposed to meet she would get excited about it. She'd perhaps know who I am and make a positive effort to get me to remember."

He snapped his fingers in excitement at a sudden thought.

"There's her letting me go for a ride alone with her brother!" he thought. "She wouldn't have done that unless—"

The thought staggered him.

"Unless she knew that there was something in my subconscious that would take care of the situation. That Aaron Varik would accept me. That

would mean—hypnotism. In some way by hypnosis my true identity and past memories have been blocked off by hypnosis! Why? There could be only one reason. I must be a tactician—qualified to do the job Aaron and Karn want me to do, with knowledge of the forces and deployment of the Earth's space navy. If Mars ever found that out they would have ways of forcing me to talk. So if hypnosis could place all that knowledge beyond my conscious reach no amount of torture or truth drugs could get it out of me."

He thought this over, nodding with quiet satisfaction.

"That must be it," he decided. "And I can see what my objective would be. It would be to maneuver Martian ships into traps that my subconscious knows to exist, so that Earth could win."

The complexity and diabolical cunning of the plot held him breathless. Earth sending her own key man to direct Martian war activities so that Earth could win! And that man was he!

A confidence took hold of him. At the right times his subconscious would provide the knowledge he needed. Behind the hypnotically induced curtain of his mind his true self was working in full consciousness.

With a queer loneliness he reached toward that hidden self, wondering who it might be, who *he* really was. And in answer came a faint whisper of thought that he could never know until his task was done. Until then he must remain—Randolph Beecher, the Martian.

THERE WAS a discreet knock at the door. When Rand called, "Come in," a servant entered, carrying neatly pressed formal garb.

"Your clothing just arrived, sir," he said deferentially. "Since there is

to be quite a party this evening, Mr. Valkor suggested I get your dinner clothes ready for you. Dinner is in half an hour."

"Thanks," Rand said.

Twenty minutes later as he was inspecting himself another knock came. This time it was Clara.

"I thought you must be back," she said. She surveyed his suit. "It fits all right," she said. "I was a little afraid I might have the size wrong."

"Then it was you who ordered these?" Rand asked.

"Who else?" she said. "You didn't have your clothes with you and I didn't want you to be embarrassed." She glanced significantly toward the picture behind which the microphone was concealed.

Rand grinned. "You're a honey," he said. "How about a kiss?"

Clara wrinkled her nose at him, but she went obediently into his arms.

"Anything exciting happen with Karn?" she whispered, her lips against his ear.

"Plenty," Rand whispered. "There's something I want to know. Who am I?"

He felt her body stiffen against him, then slowly relax.

"I don't know," she answered. "All I know is that—if you are suspected of being an Earth spy you will be killed. I don't want that to happen."

"But you knew I was coming," Rand whispered.

"No," Clara said. "I didn't."

"You must have," Rand whispered. "Otherwise how would you pick the name Randolph Beecher for me—the name I'm obviously supposed to masquerade under?"

"I met Randolph once," Clara said. "You look very much like him. Enough to be him."

"Is that the truth?" Rand asked.

"Yes," Clara whispered.

Rand took her head in his hands

and held her face away, studying her intently. He could see nothing but sincerity in her eyes.

"What's the matter?" she asked timidly.

"Nothing," Rand said, "except that a beautiful theory goes out the window and I don't know any more about myself than I did before."

He released her.

"Let's go downstairs," he said gruffly.

"We'll have time for a short walk before the guests arrive," Clara said.

A moment later they were walking across a broad expanse of lawn.

"Now," Clara said. "What's this beautiful theory you had?"

"Everything seemed to point toward it," Rand said. "It made me an Earth spy with my identity and my past, and almost everything else blocked off from consciousness by hypnosis. You had to be my contact that was to give me an identity and get me started."

"I don't understand," Clara said. "I never saw you before that moment we met on the lawn."

Rand groaned. "There's only one possibility," he said. "You must have orders to say what you're saying. It must be vital that I have no definite knowledge of what I really am. But—if that's so—why do I have this intense curiosity about myself. It seems to me the hypnosis blocks would have included an inhibition of curiosity about myself. Instead it keeps growing. I've got to learn who I am. It's becoming a compulsion that dominates my thinking. And that's wrong if my theory of what's back of it is correct."

"What do you think's back of it?" Clara asked.

"Things seem to indicate," he said, "that I'm here to take charge of masterminding the Martian plot for secession, and that my purpose is to so

mastermind it that Earth forces will defeat the Martians. In other words, from behind the hypnotic curtain of my mind is supposed to come details and plans that will seem to ensure the Martians of winning, but which will ensure their being defeated."

"What makes you think that?" Clara asked, staring at him with wonder.

"Karn took me to meet Aaron Varik," Rand said. "I've been chosen—as Randolph Beecher the master chess player—to mastermind the Martian plans."

"No!" Clara exclaimed unbelievably. "But if that's true, have you thought to wonder *why* they would give a total stranger a job like that? After all, wouldn't they have a military staff trained for a thing like that?"

"They undoubtedly have," Rand said. "They told me they felt that my very lack of experience with those things would give me a better slant—enable me as a chess genius to make planned maneuvers that would be superior to those a military staff could work out."

"Let's suppose you are what you think you are," Clara said. "But let's go further. Suppose Karn's friend really did read your lips and find out you're suffering from amnesia. Karn knows I'm a thorough loyalist. He might suspect what you suspected about me, from the evidence. He and Aaron Varik might have come to the conclusion that you were here to do the very thing they want you to do. And they might have reasoned that the best way is to give you full reign and let you map their strategy."

"But why?" Rand asked.

"Then, through you," she said, "they could find out what Earth would want them to do to be defeated. They could find out through you just what they must avoid. Instead of

following your plans those plans would serve as the danger map in their operations!"

Rand stared at her in surprise. "That's something I hadn't thought of," he said.

They walked along in silence while Rand frowned over the possibilities. Suddenly he gave a short laugh.

"Suppose," he said dryly, "that the planners on Earth thought of that too. Suppose they instructed my subconscious to make the only plan that could enable the Martians to win. Then by the Martians deliberately avoiding the plans I work out they can't succeed. That would make it wonderful. Aaron Varik knowing I'm a spy sent to give him a bum steer, my bosses knowing he would know and instructing me to give him a solid strategy, knowing that he would deliberately steer away from it."

"That's possible too," Clara said. "You know where it leaves you, don't you? Completely in the dark. You can't know what to do. You'll work out strategies that you're sure will succeed. As an Earthman you'll want to hold them back and give out a plan that you think will fail—and maybe your bosses want you to give out the other, knowing how to turn it to their own advantage. It'll be like the old shell game. You'll never know which one the pea is under."

A melodious chime sounded from the direction of the house.

"We have to go in," Clara said.

"IT'S BEEN two weeks now, Mr. Beecher," Aaron Varik said. "Don't you think it's about time you pleaded that you have to get back into writing your book and left Valkor House? In your own apartment you would have more freedom to study effectively the things you must know."

"You're right, of course," Rand

said. "But I'd like another week. I hate to go back."

"No," Varik said. "This is an order."

"Suppose I just leave the Valkors and go to some army base?" Rand suggested.

"No," Aaron Valkor said. "We want you in your usual haunts. There are Earth spies everywhere. We don't want them turning their eyes on you. We've gone to elaborate lengths in arranging for you to study the abilities of various space units, the ships, the guided missiles, the robot bombs. All our plans are built on your living your usual daily life."

"Give me a day to think it over then," Rand said. "Anyway I can't just rush off without warning."

"Very well," Aaron said. "But you leave for Kem Juncture tomorrow afternoon. When you arrive home you'll be contacted by muspo agents there who have their instructions." He stood up in an attitude of dismissal. "I must say it's been a pleasure to work with you," he said. "Your ability to memorize reams of data is truly amazing." He advanced to the door with Rand and shook hands. "I'll see you in a week or two. Goodbye now."

Rand went down the hall into the restaurant, and out to the waiting car. Karn was behind the wheel, his friend having left Valkor House that morning.

"Well," Rand said, smiling wryly, "I have my orders to leave."

"I expected as much," Karn said. "I'll fly you home myself. When are you leaving?"

"Tomorrow," Rand said. "How about borrowing your car this evening. I'd like to go driving with Clara."

"Oh," Karn said, "I forgot to tell you. Clara had to go to Sill Juncture this morning. Her aunt's ill. She

won't be back until late tomorrow."

"I'll wait to go until she gets back then," Rand said. "But why didn't she let me know?"

"It was early this morning," Karn said, starting the car. "She asked me to tell you about it. Forgot."

"How far is Sill Juncture from here?" Rand asked.

"Oh Lord, you *are* wrapped up in your dream world of chess!" Karn said. "It's half way around the planet. Clara took the strato-rocket liner. She'll be there two or three hours and come right back."

Rand settled back in frustrated silence, watching the neat rows of trees speed past along the highway. He began to wonder what was going to happen when Karn took him to Kem Juncture, wherever that was.

Suppose the real Randolph Beecher was there? Or had he been gotten out of the way? And just where was he supposed to be living in Kem Juncture?

It didn't worry him too much. He felt sure that somewhere in his subconscious was all the knowledge he needed to get by. He dismissed the problem.

An empty loneliness took possession of him. As far back as his memory went he had had Clara to depend on, there when he wanted her. It had been only two weeks, but it encompassed his entire life so far as conscious memory went.

"I wish she had wakened me," he said glumly.

Karn glanced at him. "You're pretty much in love with her, aren't you?" he said. "I hope you haven't said anything to her about what you're doing. She's a loyalist. If she knew you were working with us she might—" Karn's expression changed to amazement. "She would do just what she did—run away. I thought

it was strange for her not to want to wake you and tell you. I guess you've already said too much to her, huh?" He darted Rand a sympathetic glance, then returned his eyes to the road.

"I don't believe that," Rand said.

"I know my sister," Karn said. "She will probably stay at her aunt's for several weeks once she gets there. She does that. Aunt Bessie has been sort of a mother to her."

"I'll be ready to leave in half an hour," Rand said bitterly. "Is that what you want?"

Karn didn't answer for several seconds. "I imagine it's what Clara wants," he said finally.

RAND TORE up the piece of stationery and threw it angrily into the wastebasket beside the desk in his room. He had wanted the half hour to compose a letter to Clara. The half-hour was up and he was just where he started. Nowhere.

"It's just like everything else," he thought bitterly. "Logic paints it one way but it works another. I don't have enough to go on. Clara leaves early in the morning. Aaron Varik orders me to Kem Juncture. Karn is puzzled by his sister's behavior and says it doesn't make sense unless I told her I was working for the Martians, and I did. But I'm positive he knew I had told her. I'm certain her leaving was not to see an aunt, but in some way connected with, forcing me to leave here."

He began another note. "Dearest Clara," it started. "I'm sorry you had to be away when—"

He threw down the pen and stood up. Crumpling the note and dropping it on top of the others in the wastebasket he left the room. In the hall he encountered a servant.

"Where's Mr. Valkor's room?" he asked.

"You want Mr. Valkor?" the servant said. "He's in his study. If you'll come with me I'll take you to him."

Rand followed him. He was feeling better about it. He could thank the hospitable old man and ask him to tell Clara to get in touch with him.

The servant knocked discreetly at the paneled door. When Mr. Valkor's voice sounded to come in he opened the door and stood aside so Rand could enter.

The old man's eyes lit up with pleasure. "This is a surprise," he said. "I'd hoped to have a chance to get better acquainted with you, but Clara monopolizes you."

"I'm sorry I didn't take the opportunity," Rand said. "Now it's almost too late. I'm going to have to leave. I hate to, but it's necessary."

"That's too bad," Mr. Valkor said.

"Will you tell Clara when she gets back from her aunt's at Sill Juncture that I had to rush away and would like her to get in touch with me right away?" Rand said.

Mr. Valkor's eyebrows lifted in surprise.

"But Clara has no aunt in Sill Juncture!" he said.

"I must have been mistaken about the place," Rand said hastily. "Anyway, will you tell her when she gets back?"

"Yes, of course," Mr. Valkor said. He looked as though he wanted to say something more, then changed his mind.

He shook hands with Rand and went to the door with him. In the hall Rand looked around. No one was in sight. On impulse he went past his own door to Clara's. He twisted the knob cautiously. The door was locked. He hesitated, then knocked softly.

He placed his ear to the door. There seemed to be movement on the other side.

"Clara!" he said softly. "This is Rand. Are you there?"

His ears ached from the strain of listening for the faintest sound. He could swear he felt her standing on the other side of the door.

He looked hastily up and down the hall. No one was in sight. Quickly he stooped down to the keyhole and tried to look through it. The eye of the keyhole was obscured by something. The slot tapered from a point down to full width. There was a key in it. A key on the inside. He squinted, trying to see through.

Suddenly someone touched the key. Rand straightened and looked around for concealment. Ten feet away was the door of a janitor's closet. He hid in it. When he closed its door he grunted in satisfaction. There were half a dozen narrow slits in the upper part of the door for ventilation. He could see out.

He had been none too soon. Even as he peeked through the slits he saw Clara's door open. Karn's friend who was supposed to have left stepped out. Karn followed him, closing Clara's door and locking it, then handing the key to his companion.

"Everything will be all right until I get away from here with Rand," Karn said. "But keep out of sight. You're supposed to have left already. Rand would smell something if he saw you."

"Right," the man said as they passed by the closet door.

RAND PUSHED the door open a crack. He saw Karn's friend go through a door down the hall, and Karn go down the stairs. Rand opened the closet door and stepped out.

He paused at the door. Karn's friend had entered. He took a deep breath, then twisted the knob and

shoved the door open.

The man was crossing the room, his back to him. He started to turn idly, not suspecting anything. Rand was on him while he was still blinking his surprise.

A surge of elation flowed through Rand as he went into action. He hadn't known whether he had the skill of fighting, nor had he cared. But now he felt assurance as he saw his hands move of their own volition, his body weave and duck.

The man was no mean fighter himself. Rand had gotten in a telling jab to the man's jaw at the start that had dazed him. He had covered up expertly, fighting silently.

But he was a little slow. Rand found that he was a sucker for feints to the body. Capitalizing on that he landed cruel blows to the man's face, slowing him even more.

Suddenly there was an opening. Rand's fist was coming up from the waist even as he saw the opening. It landed underneath the jaw, jerking the head upward. The man's eyes glazed. His knees wilted.

Hastily Rand looked around for something to tie him with. There was a fine chain on the drapes at the windows. A sharp tug broke the chain. He wrapped it around the man's wrists, brought his legs up behind and wrapped the rest of the chain around his ankles. Two handkerchiefs from a dresser drawer formed a gag.

Breathing heavily, Rand searched the man's pockets until he found the key to Clara's room. He grunted his satisfaction as he found it. He straightened and started toward the door. It was wide open.

He grinned. No one had passed or they would have seen the fight.

He closed the door as he went out, then hurried to Clara's room. Without hesitation he inserted the key and opened the door. He entered and

closed it behind him before daring to look.

When he did look he saw Clara lying on the bed. He leaped to the bed and searched for her pulse. It was there, slow, indicating that she had been drugged.

"Clara!" he said urgently, shaking her head. She moaned drowsily. He shook her again. Then he went to the bathroom and soaked a washcloth in cold water, coming back with it and bathing her face.

She opened her eyes, then closed them.

"Clara!" Rand said.

"What is it?" she said drowsily. Then, "Rand!" She opened her eyes and sat up in alarm, looking down at herself. She saw that she was dressed. A frown of bewilderment appeared on her face.

"You've been drugged," Rand said. "Wake up. I haven't much time." She was shaking her head. She took the washcloth from him and placed it over her eyes. "Karn's waiting for me to take me to Kem Junction," Rand said. "Why did he drug you and tell me you had gone away?"

"Be quiet a minute," Clara said. "There was something... I found out something. Oh yes. Karn just got word last night that the M. U. S. P. through their agents on Earth have found out your true identity and the key to wiping out your hypnotic bloc. They don't intend to do that until they've let you map the strategy they've assigned you to map for them. Once you've done that they'll drug you and unlock the secret plans hidden there. They're sure that by doing that they can uncover top secret Earth plans and use that knowledge to win the war that's coming."

"And they caught you eavesdropping on them?" Rand asked.

"Yes," Clara said. "Karn won't kill me because I'm his sister, but he knows that if Aaron finds out he'll order me liquidated, so he drugged me to keep me from warning you, hoping that by the time you had gone I would decide to keep quiet."

"Did—" Rand took a deep breath. "Did you learn my real name?"

Clara turned her drugged eyes on him gravely.

"Yes," she said.

"What is it?" Rand asked; his voice strained.

"I can't tell you," she said. "Your name is the key that unlocks your memory."

"So much the better," Rand said eagerly.

"No," Clara said. "They would know then and kill you. They've given you too much data to do otherwise."

"I don't care," Rand said. "I'll take my chances on that. Tell me!"

"No!" Clara said.

"I had a fight with Karn's friend," Rand said. "I knocked him out and tied him up. When he wakes up he'll know I got the key to your door and talked with you. The masquerade is over. You've got to tell me."

The sharp sound of a key rattling in the lock froze them. Rand glanced toward the door, then back to Clara.

"You never woke up," he whispered. "Remember that."

Clamping his lips together grimly he tapped her sharply just under the ear with his fist.

As she relaxed in unconsciousness, he started wiping her face with the wet washcloth. He pretended not to hear the door open.

"Wake up!" he said sharply as though it were for the hundredth time. "Clara! Wake up!"

"STOP THAT," Karn's voice sounded softly.

Rand stiffened his shoulders so that Karn would think he had been caught by surprise. Then he turned slowly, his lip curled in an expression of anger and contempt.

"I've heard of brothers like you, Karn," he said. "But I never thought you'd go to these lengths to break things up between me and your sister. You tell me she's rushed off to see an aunt without bothering to tell me. I suppose you'd tell her when she wakes up that I went away without bothering to even say goodbye to her." He was ignoring the snub-nosed gun pointed at him.

"You've gone too far, Rand," Karn said in a tired voice.

"Too far?" Rand said, giving a short bitter laugh. "You mean knocking out your friend? How could I do that? You said he had already gone?"

"Too far, Rand," Karn said, his voice a monotone.

"You're the one who's gone too far," Rand said. "From now on you can go to the devil so far as any help from me is concerned. You can tell Aaron Varik that, too. And tell him why."

"Too far, Rand," Karn said. "I'm going to kill you."

Suddenly Rand realized he meant it. Karn's eyes had changed remarkably. They seemed flatter, baleful as a wild animal's.

"You know," Rand said, pretending amusement, "I really think you mean it. I've suddenly discovered the real you. You're an egomaniac. I've shown you up as a liar and a cheap intriguer, and you can't stand my knowing you'd stoop to cheap lies, so you intend to kill me."

An aura of hate seemed to expand outward from Karn, and slowly draw back in.

"It's not that, Rand," Karn said

gently. "You should have gone with me. Don't you see that? Could you go with me now and forget all this, and do the work we've asked you to do? You know you can't. And you know too much."

"All right," Rand said. "I can see that you might have to kill me. I don't like it, of course. How do you propose to do it? Shoot me here in your sister's room, with her lying here drugged?"

"It's an idea," Karn said. "I could say I'd surprised you here. Brother shoots sister's attacker."

"But Clara would brand that a lie," Rand said.

"I don't think so," Karn said. "She'd be very unhappy about it all; but she wouldn't brand her brother a murderer and disgrace her father."

"And what about Aaron Varik?" Rand said. "Would he like it?"

Rand hoped that this sudden shift in the direction of the argument would take Karn slightly off guard. As he spoke he threw the wet washcloth at him and propelled himself forward in a long low diving tackle.

He saw Karn avoid the washcloth and his outstretched arms. He was sprawling on the floor, realizing he had lost his gamble, when he felt a stinging pain where his neck joined his shoulder. Karn had used the gun to paralyze his arm.

"It was a nice try, Rand," Karn said. "Now get up. We're leaving."

Rand got slowly to his feet. His arm hung uselessly at his side.

"So you don't want to kill me here," he said.

"No," Karn said. "I want to take you out over one of the deserts. That way you'll never be found. Clara will think you went to Kem Juncture and forgot her. No one will ever find you or be able to prove anything."

"And you expect me to simply

walk out of here with you and submit to that?" Rand said. "I don't think I will. I think I'll stay here. You'll be forced to at least knock me out. Then you'll have to carry me out. That will involve risk."

"I'll knock you out," Karn said. "Then I'll tell dad you suffered a heart attack. I'll get a muspo to pose as a doctor and have you taken away in an ambulance. I can tell dad later that you recovered at the hospital and went on to Kem Juncture."

"Okay," Rand said, grinning wolfishly "knock me out."

He watched Karn advance cautiously. He had knocked Clara out so that if Karn examined her when he first came into the room he would find her genuinely unconscious. When Karn hadn't done that, he had stalled for time for her to awaken. He stole a glance toward the bed now. Clara's eyes were open. She was looking at him questioningly. He nodded imperceptibly.

Clara said quietly, "What are you doing with that gun, Karn?"

KARN INSTINCTIVELY turned to look at his sister. In that instant Rand stepped in and brought a short uppercut to the point of his jaw. He felt a knuckle crack open and realized sickeningly that with one arm paralyzed and the knuckle of the other hand broken he was done. Then elation surged through him. He saw Karn's gun drop from his fingers, his body begin to slump.

Quickly he stooped to pick up the gun.

"Hold it" a voice said from the doorway.

Rand straightened. Karn's friend was standing there, a gun in his hand. He stepped into the room and closed the door behind him.

"It seems the whole situation has

degenerated completely," he said. "It's very unfortunate. The House of Valkor was an excellent front for spying on the loyalists and keeping track of them."

He backed toward the phone stand, the gun steady in his fist. He lifted the receiver and listened, then laid it down. Rand remained still while he dialed, his eyes never on the phone long enough for Rand to do anything.

"Aaron?" he said into the phone. "This is Eld. You'll have to raid Valkor House immediately. Karn is no good to us any more. And Randolph Becher knows too much to cooperate with us. How much I don't know. His sister will have to be taken care of too. I'm holding the three of them in her bedroom. The father should be placed under political arrest, and the other guests should be taken in and held until we can decide what to do. Get things moving at once."

He dropped the phone back on its cradle and advanced slowly toward Rand.

"What do you mean, Karn is no good to you any more," Rand asked. "Are you planning on liquidating him?"

"We'll have to," Eld said. "He's been a good agent but he's too loyal to his family. It interferes with his judgment. That's why the whole situation as regards you has degenerated. His sister's in love with you. To keep your liquidation quiet we'll have to silence her. That means her brother too, since he wouldn't stand for it."

Rand saw Karn's eyes flicker open. He had to keep Eld from noticing it.

"By liquidating Karn and his sister and me you mean killing us, I suppose?" he said.

"I'm sorry," Eld said curtly, "but you can see the necessity of it, I'm sure. We can't endanger the out—"

Karn in a swift movement had reached out and seized Eld's ankles

and jerked with his whole body. Even as he fell Eld had sensed the situation and was adjusting himself to break away and leap up.

Rand saw this and leaped forward. As Eld hit the floor Rand kicked the gun out of his hand.

Karn transferred his grip to one foot, twisting it and doubling Eld's leg sideways.

Winced at the pain of his broken knuckle Rand picked up Eld's gun and brought it down against the top of Eld's head.

It had taken no more than seconds. Eld was stretched out senseless.

"We'll have to move fast," Rand said. "He called Aaron. There's going to be a raid any minute."

"I heard him," Karn said bitterly. "Sis, you and Rand get a car out of the garage. I'll get Dad. In case something happens, the only place for you to go is to the Earth Embassy headquarters. There's no place on Mars we can hide. The secret police are everywhere. Once you get there you'll be safe and can be smuggled off the planet. Mars isn't quite ready to risk war by violating diplomatic immunity. Get going."

Clara was already off the bed. She opened the door.

"Hurry, Rand," she said.

On the stairway they paused as the sound of a shot came from the room they had just left.

"Keep going," Rand said gruffly.

Outside as they ran toward the garage they could hear the distant sound of sirens screaming.

"We'll get the car and stop at the front door," Clara said.

She lifted the garage door and ran to a sedan, getting behind the wheel and opening the other door for Rand. The sirens were much louder as she drove the car around to the front of Valkor House.

Her father was just emerging from the entrance carrying Karn across one shoulder. When Clara screeched the car to a stop, he opened the rear door and lowered Karn inside, getting in himself.

"What happened, Dad?" Clara asked as she hurtled the car forward.

"I heard a shot," he said. "I ran into your room. The door was wide open. Eld had shot Karn. I had my own gun from my desk; I'd taken it with me because I'd heard the shot. I killed Eld and when Karn told me to bring him down to the front I did. What are those sirens?"

"The police," Clara said.

The car tipped precariously as she turned it into a side road.

"How are we going to make it to the Earth Embassy?" Rand asked. "They'll have every road blocked."

"We've got to take care of Karn first," Clara said.

The car leaned dangerously as she turned into another road. She had gone only a short distance on this one when she turned into a driveway and stopped.

"Wait here," she said, getting out of the car.

She ran to the front door of the house, a white stucco two-story residence.

The door was opened by a white-haired man who listened to her, then looked toward the car. He nodded vigorously and left the door to open the doors of the garage attached to the house.

Clara ran back and drove the car into the garage. The doors were closing behind them.

"Now what's this all about?" the man asked, coming up beside the car.

"The police are after us," Clara said. "Rand, this is Dr. Temple, an old friend of the family. Karn's wounded, Dr. Temple. We've got to get him taken care of right away."

Dr. Temple opened the rear door of the car and held his fingers against Karn's wrist. A moment later he dropped the wrist and shook his head.

"Too late," he said. "Karn's dead. How'd it happen?"

THERE WAS a moment of stunned silence during which Rand stared at the still figure half draped over Mr. Valkor's lap, shirt front stained with thickened blood.

Mr. Valkor mumbled, "My son—dead?" Clara broke into convulsive sobs. Rand pulled her head against his shoulder. She tried to pull away but he held her fiercely.

Dr. Temple in a kind voice was trying to get Mr. Valkor to get out of the car. Rand felt Clara relax against him, giving way to her grief.

Faintly the sound of sirens starting up again crept into the closed confines of the garage.

Dr. Temple had succeeded in getting Mr. Valkor out of the car. He led him through a door into the house. Rand and Clara were alone with the corpse.

Rand clamped his teeth together. His shoulder was waking up. The collar bone was broken. Clara's slight movement against the left shoulder was just enough to keep agonizing pains shooting through the right one.

He looked down at his swelling knuckle on the hand pressed to her back, a wry expression settling on his features. He hadn't done very well, he decided. He had been hampered too much. Not knowing who he was—

"Clara," he said softly. "Don't you think it's time to tell me who I am? Certainly nothing can be served now by holding it back. Aaron Varik and the secret police are after us. You're brother is dead."

She shook her head and continued sobbing.

"Don't you understand?" Rand persisted. "I'm too much at sea this way. I don't know what to do. I do the wrong things. I should have played along with Karn and not tried to see you. He wouldn't have let any harm come to you. But your supposed going away left me stranded emotionally. You were the first thing in my memory. I'd been with you every moment that I wanted to be. Even when I was alone I knew that in a minute I could find you and be with you. Suddenly that was taken away from me. I was like a child when its mother—no, that isn't right either. I love you. I don't think that was taken into account by those who sent me or brought me to Mars. Maybe they couldn't understand the effect it would have on me to fall in love with you. They probably expected me to act like a machine—accomplish my task, go to wherever I was supposed to go when my mission was accomplished, and have my name spoken, restoring my full memory. Just like that.

"It might have worked that way if I hadn't met you. But from the first moment I saw you the urge grew in me to find out who I am. Am I married? I don't know. I don't think so. At least I know I don't love anyone but you. And that's grown more important than any job I was supposed to do. It's got to be settled. Tell me my name."

Clara sniffed loudly and pulled herself erect.

"No, Rand," she said. "I—I can't—yet. Please don't make me. I've had all I can take for a while."

"But why?" Rand asked. "What could be upsetting about it? You tell me my name, that unlocks my memory, I know who I am and regain my full memory and abilities."

"No!" Clara said harshly. "Please, Rand."

She opened the door of the car and ran around the front of the car and into the house. Rand stared after her in wonder.

Suddenly like a bath of ice water the thought came to him: "If she knows who I am she must know if I'm married! That's the only thing that could account for her behavior."

And suddenly he didn't want to know who he was.

Using his elbow clumsily to open the car door he climbed out and followed her into the house. Inside was a comfortable living room. No one was there.

His shoulder and hand were throbbing. He felt weak, and suddenly he felt nauseated.

He sank into a chair and leaned back, closing his eyes.

DR. TEMPLE turned away from the phone. "That takes care of the car and Karn's body," he said gravely. "It's the only way."

Clara and her father nodded numbly. Rand paused in his pacing. Three days had passed since they had entered Dr. Temple's house. Three days during which he had grown more and more impatient. Three days during which Dr. Temple's calm lack of haste had had a maddening effect on him.

Rand had restrained himself. There was such a thing as a sense of propriety, and Clara's grief at the loss of her brother was very real. But there had been times when he could have willingly tortured her to force her to utter his real name and wipe away the hypnotic veil.

"Why don't you sit down, Rand?" Dr. Temple said abruptly. "Try to relax. My friend at Kem Juncture has undoubtedly received my letter by now and taken it to the Earth Embassy. It shouldn't be long until

we get a reply and know what to do."

"I can't help it, doctor," Rand said.

"I can't stand being caged this way."

"Physically and mentally," Dr. Temple said sympathetically. "I understand. But I wonder if you understand—"

"How can I understand anything with less than half a mind?" Rand said bitterly. "From my first moment of memory I've gone around in circles that get me nowhere. I take everything I know and can learn and put it together, and it makes sense—until the next thing knocks it apart again." He stared pleadingly at Clara's averted face. "Karn wouldn't have needed to die if I knew who I was," he said softly.

"That's not necessarily true," Dr. Temple said kindly. "I'm sure that the reason Clara refuses to say the words that will restore your memory is a strong one."

"Certainly it is," Rand said. "I know the only thing it can be. Once my memory is restored, if I'm caught by the secret police they can force information out of me. But there's this to say about it, too. Unless my memory is restored I'm liable to be caught. I can't think things through the way I am."

"Please, Rand," Clara said, her lips trembling. "Let's forget about it for now. When you reach the Embassy your memories will be brought—" The phone shrilled.

Dr. Temple answered it. His side of the conversation consisted mostly of silent nods and an occasional, "I understand."

"Everything's arranged," he said when he hung up. "This afternoon a large highway carrier will call here for some furniture. They will have their load packed so that there's a hollow place for the three of you to hide. That truck will deliver my pieces of

furniture to the Earth Embassy." He smiled. "You, too."

"Wonderful!" Rand exclaimed. He turned to Clara with a happy smile. "It won't be long now, darling," he said.

Clara returned his smile. But suddenly she turned her head away. Then she was crying. Rand went to her and put his arms around her shoulders.

Mr. Valkor coughed significantly at Dr. Temple. The two men left the room. Rand watched them go, then lifted Clara's face.

"Can't you tell me what's the trouble?" he asked. "All I can guess is that you must know all about who I am, and that I'm married. Is that true? For if it is, one thing I know, I don't love anyone but you. I'm sure of that. If I'm married I'll get a divorce right away. We'll be married—"

Clara was staring at him, a look of amazement on her face. She started to laugh hysterically.

"What's the matter?" Rand said helplessly. "Clara! Stop it!"

Her hysterical laughter stopped abruptly. She began crying again. Suddenly she struggled free of Rand's embrace and ran from the room.

THE RIDE had been as eventless as the stay at Dr. Temple's. The huge truck had backed against the open garage. The driver and his helper had removed some furniture and boxes, revealing a comfortable open space in the heart of the load. After Mr. Valkor, Clara, and Rand had entered and settled themselves the pieces had been put back so that unless the huge carrier were unloaded it would appear innocent.

Rand's shoulder had itched quite a bit during the trip, the effect of the rapid healing process going on in the collar bone which Dr. Temple had fastened together with pegs. Finally

he had fallen asleep. He hadn't awakened until Clara had shaken him gently and informed him that they had arrived.

He opened his eyes to see the lights and unloading platform. Mr. Valkor was already stepping out of the truck. There were other figures out there. One in particular drew Rand's attention. He couldn't remember ever having seen the man before, but something stirred in his mind at the sight of him.

He got to his feet with Clara's help and staggered out of the truck, every cell of his body tingling from the long ride.

"Come this way," the man who had attracted Rand's attention said.

Flanked by Clara and Mr. Valkor, Rand followed him. They entered a warehouse room, following the man along gloomy corridors until they went through a door into brightly lit comfortable living quarters.

"You're undoubtedly tired from the long trip," the man said. "I'll have you shown to rooms where you can take hot baths and freshen up before having a late dinner."

Rand hesitated, then decided not to protest. He looked at Clara, his eyes full of misery. The same fear seemed to be reflected in her eyes.

He started toward her. She turned quickly away.

A moment later another man led him out of the room to a self-service elevator which went up three floors before stopping.

Half an hour later, exhilarated by a soothing bath and shave and clean clothing, he was escorted into a luxurious dining room where the man who had affected him so remarkably was waiting. Mr. Valkor arrived at almost the same time. Clara came a few minutes later.

The meal was eaten in silence. Rand sensed that everyone was avoid-

ing something. Clara had the air of a doomed person. Mr. Valkor seemed to be holding in an all-consuming grief. The stranger seemed to be holding in leash eager desire to get ahead with something.

Rand spent his time trying to think of something to say, and discarding one thing after another.

Finally the stranger straightened up with the air of a man who has waited eternally for a bus and sees it approaching.

"How do you feel—Rand?" he said calmly. "Do you feel up to a couple of hours of work? Or would you rather have a night's sleep first?"

"I slept most of the way here," Rand said.

"Then if it's all right with you we can go to my office and get down to business," the man said.

"Not yet," Rand said. "I want a half hour alone with Clara."

He turned his eyes to her, entreating, demanding.

Her face cramped strangely. "I'll be here when you're through, Rand," she said almost inaudibly.

"Of course she'll be here," the stranger said heartily.

"Please do—what has to be done, Rand," Clara entreated.

"You don't want to be alone with me for a minute?" Rand said.

"Please," Clara said, her face cramping again.

"Right," Rand said gruffly. "Come on. Let's get it over with."

At the door he turned and looked back. Clara was watching him, her eyes large and pathetic.

"WELL, GET it over with," Rand said half angrily.

There were several men in the room. There was also a microphone in front of him where he had been seated.

"We want you to tell everything

you have learned about the Martian plans for rebellion," the stranger said. "Everything."

"I understand that telling me my right name is the key to restoring my full memory," Rand said. "How about telling me that now? There can't be any point in not doing it. I'm safe here."

"We would prefer to have you make your report first," the man said. "It won't take you long. And when you're done we'll restore your memory."

"You promise that?" Rand said.

"We promise," the stranger said.

"All right," Rand said. In a brittle voice he began talking. Everything he had memorized from the papers Aaron Varik had placed at his disposal came out in an even flow. Those in the room listened.

Rand himself listened to his smooth flow of calm facts, marvelling at his memory. Things that he hadn't realized he had noted in particular came out accurately. For the time being he was an automaton reciting.

And finally he was done. A long silence settled over the room. Rand sat waiting.

"Well?" he exploded suddenly. "I've done what I was evidently supposed to do. How about it? Do I get my memory back now?"

He looked at the faces that regarded him so silently, so gravely. So pitifully.

"Very well," the stranger said. "First—may I shake your hand for a job well done?"

"Well done?" Rand said with a bitter laugh. "I ruined everything, didn't I?"

"No," the man said. "You got everything we wanted. The full details of Martian strength, behavior of their secret weapons, industrial conversion plans. Everything we need to prevent the war from even starting. There

was one death. Like all such things, hindsight might have prevented it. But everything you were specifically conditioned to accomplish has been accomplished.

"Further, we've found the weaknesses in our present technique of hypnotic blocking and directives. We'll correct them in future operations of this sort."

The stranger took a deep breath.

"So we thank you—Major Claude Winthrop," he said.

Claude Winthrop blinked his eyes, took in the intent expressions on General Archer's face and the faces of the others all of them known to him.

He glanced curiously around the room.

"How'd I get here, sir?" he asked. "A moment ago I was in—" An expression of surprised wonder appeared on his face. "So it worked" he exclaimed.

"Yes, Claude," General Archer said, smiling. "Right now you're on Mars, and your mission has been accomplished."

"Just like that," Claude said wonderingly. "And I can't remember a thing that happened. I can't even sense a passage of time. It's as though just a moment ago I was going under hypnosis."

He winced and touched his shoulder tenderly. He noticed his bandaged left hand for the first time.

"Looks like I had some trouble," he said wryly.

"A little," General Archer admitted. "Think hard. Can you recall any of it?"

Claude closed his eyes. A moment later he opened them and shook his head cheerfully. "Not a thing," he said. "I find it hard to believe it's

so—that I've been doing anything since I went under hypnosis. How long ago was it?"

"Two months," the General said. "Your hypnosis went in two separate stages. One hypnotic focus acted during the trip from the Earth to Mars. It was conditioned to cease operation the moment you shed your emergency landing suit so that if you were captured you would be unable to tell anyone how you arrived. The second came into operation with the cessation of the first. It operated under certain subconscious directives—not too well, we find. That phase ended just a moment ago after you gave us your report. Now if you were to be captured you would be unable to recall any of your activity. We have all that on the tape recorder. We had to get it before returning you to your normal memory circuits."

The General stood up.

"We have one more test," he said. "Follow me."

MAJOR CLAUDE WINTHROP stood up and followed the General, glancing curiously at his surroundings.

They left the room and passed through a corridor into an office. Claude looked about him. If he had passed this way before he couldn't remember.

He followed the major into a carpeted hall. They came to a door. The General opened it and stepped aside for Claude to enter.

There were two people in the room. Claude glanced curiously at them; but the General was crossing the room to another door without doing more than nod curtly at the young lady and the gray haired man.

Claude gave them a smile and followed the General, thinking, "Must be a waiting room."

General Archer opened another door. Claude followed him into another hallway.

"Where are we going, sir?" he asked as they continued along this hall.

"To a room that's been assigned as your sleeping quarters until we ship you back to Earth," the General said calmly.

"Who were those people in that waiting room we just passed through?" Claude asked.

"Why," the General said, "I believe the man is a Mr. Valkor, and the young lady is his daughter, Clara Valkor. Know them?"

"No," Claude said.

They continued on until they came to the doors of an elevator. The General pressed the button to summon it.

"Sir," Claude said.

"Yes?" the General said frowning.

"I wonder," Claude said. "This is highly irregular, but—would it be possible for me to meet the young lady?"

The General looked at him with what appeared to be amusement.

"Why?" he said. "Don't tell me that you're romantically interested in a strange young lady you've never met!" He studied the expression on Claude's face keenly. "I believe you are!" he said softly. "Well, all right. Come on. I'll introduce you."

"Thank you, sir," Claude said.

"Wait here for a minute, Claude," the General said gruffly as they reached the door. "I want a few words with Miss Valkor first. About business."

General Archer pushed open the door and stepped through, closing it firmly behind him. Clara rose to her feet, her eyes filled with a mixture of agony and hope.

He shook his head sadly at her. "Sorry," he said. "Operation Amne-

sia has been a most dismal failure. The one weakness is that human emotions rise from too deep in the subconscious to be controlled by directives. We'll have to take that into account in future operations of this

sort. You see, my dear, Claude Winthrop wants to meet you. In fact—he's standing just outside the door, waiting to come in."

THE END

CELLULAR LABORATORY

★

By H. R. STANTON

★

LIFE'S processes have their most basic levels in the building block of metabolism—the cell. Protoplasm, that primal stuff is compounded of cells, and within the cell we can best observe the life-process at its lowest—and most important—activity.

It would be interesting if we could probe into the cell and operate upon it, if we could make it our laboratory so to speak. Fortunately with modern equipment this is possible and biologists are dragging out the secrets of life from beneath the objective of microscopes.

The technique and science of "micro-manipulation" common to the science of microchemistry, has been extended to the field of biology. Using delicate needles, and pipettes the microscopist, working under a high-powered lense, is able to go into a

cell with these tools, and operate upon it as coolly as a man cutting up a slab of beef. Injecting fluids into the cell, he sees the reaction. Using the needle, he may tear the cell into shreds watching its healing and closing processes.

In this microcosmic laboratory, science sees the essence of life concentrated. Apparently there is no limit to this technique. Since there is no need to deal with smaller life-forms—there are no more fundamental ones—micro-manipulation is content with improving its present tools. The microscopes and their associated equipment look like something out of Rube Goldberg, but actually they more nearly resemble a fine-watchmaker's equipment. And that's right too, for isn't a cell infinitely more complicated than a watch?

★ ★ ★

NUMBERS PAY OFF!

★

By MILTON MATTHEW

★

IT'S WELL-KNOWN that the "numbers racket" pays off very well—to the operators—not to the "suckers". But the numbers game we're referring to is one which pays off always and to everybody—we're referring to legitimate mathematics. You can talk about mathematics until you're blue in the face trying to convince the novice that here is the key which will initiate him into understanding the secrets of the universe—but until one actually takes the plunge—talking is no good. Nevertheless it is interesting to point out one or two facts.

If anyone hopes to do anything in modern science—even in most branches of applied science or technology—unless he's got a firm grasp on mathematics even if it's only elementary—he's in for a hard time. In fact the mental rewards of the study of science are almost in direct proportion

to the amount of mathematics that a person attempts to wrestle with.

The reason for this isn't hard to understand. Kelvin it was, who said, "until you can't measure a thing and assign numbers to it, you don't know what you're talking about..." He hit it on the head. As an actual check on the hoary old truism, you might give it a whirl sometime. Whatever your stage of mathematical skill, whether you've just the rudiments of algebra or whether you know differential equations like your own name, try studying just one stage higher and then go back and look over the chemistry and physics you've gone through once. You'll be shocked at the incredibly increased understanding, at the amazing facility with which ideas will come your way. Try it and see!

★ ★ ★

The Bouncing Molecules



By CARTER T. WAINWRIGHT



INVARIABLY it is a startling thing to anyone who goes beyond the most elementary treatment of gases in physics, to consider on what flimsy (apparently) grounds an entire theory can be constructed. The best example of this is the now-familiar kinetic theory of gases. After the combination of Charles and Boyle's laws into one, the fact that the pressure times the volume of a gas equals a constant for a given temperature, it was only natural to wish for a physical picture to explain this observation. Remember that this was before any clear-cut idea of the molecular theory had been determined.

It was then that Joule and Clausius proposed the rather simple idea that a gas must consist of tiny spherical particles bouncing around at random with a container. Using this simple idea, the pressure-volume relationship, and a lot of elementary mathematics, they laid the accurate foundation for our modern molecular theory of gases. The astounding things are that subsequent researches and studies

proved them correct with amazing sharpness. It was a splendid example of the power of the mathematical method. Not until Maxwell's famous Electromagnetic Theory was mathematics to be used in a more powerful, more convincing way.

Each year has seen the application of mathematical methods to physical problems bear more and more fruit. Nor does it seem likely that this will decrease. Whether we like it or not, mathematical symbols have some mysterious relationship to our physical universe that we can't deny. Philosophers who have examined the problem have come up with no adequate explanation. The world is a strange blend of hard cold reality and light abstract mysticism.

It won't be long before some genius comes up with the answer to the insoluble wave-particle controversy which makes mockery of logic in modern physics. That, along with the nature of gravitation, is just waiting for a powerful mathematical attack. Bring on the genius!

HORSEPOWER HUMBUG . .



By LESLIE PHELPS



THE TERM "horsepower" which we encounter almost everyday in one form or another, is an extremely confusing quantity. Basically it's defined rather simply and there is no confusion. Example: one horsepower is a measure of the rate of doing work and in English units, is the expenditure of energy at the rate of thirty-three thousand foot-pounds per-minute. That's all there is to it.

But wait a minute—this doesn't mean the same thing to all people—or does it? What about the familiar way in which we rate our cars. The manufacturer says his car has horsepower of one hundred, but the tax-collector writes down the horsepower as twenty-one. Why the discrepancy?

Actually the manufacturer is giving the rating of the amount of horsepower that can be taken of the flywheel. It's a fair rating. The engine actually develops considerably more than this counting the internal friction of pistons etc., and the accessories it is required to run. Therefore the total energy put out by the engine may be close to a hundred and fifty horsepower, though the useful energy is less—down to the hundred cited. Because there is friction in the transmission and differential etc., the power available to drive

actually the car, may be still less.

The tax collector simply uses an out of date formula which is good enough for tax-ratings but which bears no resemblance other than a definite proportionality to the real McCoy.

In rating rockets and jet engines in terms of horsepower the matter is considerably more complicated because the speed at which the engine is traveling must be taken into account. Thus for example, the V-2 rocket at its maximum velocity and thrust is developing over four hundred thousand horsepower! Rocket engines evidently differ considerably! You don't find that kind of energy in anything less than an explosion. The explanation is simple too. Because horsepower is a measure of the rate of expending energy, it depends upon time. Where the energy is great and the time small, the horsepower is tremendous. A perfect example is that of an explosion, say of a bomb or of a dynamite charge. In both cases, as in the case of a lightning flash, the horsepower developed are astronomical.

The next time you fire a rifle, think of the tremendous horsepower rating of that explosion. It'll make you appreciate what real power is!





Human flesh couldn't bear that insane clamor. Jake turned and fled into the desert



TERROR OUT of ZANADU

By Robert Moore Williams

Visitors to Zanadu were always welcomed by the Martians. But when the time came for you to leave—then they dealt the joker!

BEHIND HIM, Richard Burton heard the argument begin. He sat down on an outcropping of rock, a part of a small hill which rose out of the dry, dusty, seemingly never-ending plain which the Martians with good reason call *Alvadar, Death's Place*. He was determined to rest a few minutes while Red Malumby and Jake Frederickson settled their differences of opinion.

Jake Frederickson was tall and lean; there was something of the wolf

about him. His face was covered with a heavy growth of whiskers, his clothes were ragged and dusty, and he looked a little like a *donjal*, the leaping hyena of the Martian deserts.

Red Malumby was short and squat. He was built on the lines of a grizzly bear and he had all the fierce courage and terrible strenght of that animal.

Jacke Frederickson said, "Goddam it, Red, I just gotta have a drink."

"Have I had a drink since you had one?" Red Malumby answered.

"I ain't *seen* you take one," Frederickson said. "But you got the only canteen of water in the bunch and for all I know—" At the expression on Malumby's face, Jake Frederickson hastily changed his mind about what he was going to say. "Sure, Red, I know you wouldn't double-cross me. I know it. If you say it, I know it." All irritation was gone from his voice. Instead of irritation, there were the whining notes of fear.

"You wouldn't ever make a mistake about me double-crossing you, would you, Jake?" Red Malumby said.

At the tone of Malumby's voice, Frederickson began visibly to shake. His hands and his body trembled. His adam's-apple bounced up and down. The wolf in him instantly changed into a whining puppy.

"N—no, Red," he stuttered.

"Good," Malumby said. He laughed a little as he said it. Jake Frederickson took a deep breath and seemed to come alive again.

By this time, Sam Carwold and the girl had come up. The girl's name was Nancy. So far as Burton knew, she had no other name. In her presence in this group, Burton had always sensed a mild enigma. He had always dismissed the enigma by assuming that she belonged to Red Malumby, just as the gun at his hip belonged to Red, the heavy pack on his back, the canteen swinging from his belt. Burton had never been quite satisfied that this conclusion completely fitted the facts of the case. Red Malumby acted as if he *wanted* her to belong to him, but she acted as if she didn't intend to have any of that.

Why worry about the presence of a woman here when there is so much else at stake, Burton thought. He dismissed her from his mind and watched. Carwold was raising hell about the water too.

"Damn you, Malumby, I tell you I gotta have a drink. We've all got to have one."

"All right," Malumby said. "Since you asked for it you're going to get it." Slowly he removed the canteen from the webbed belt that he wore. Feverishly the two men watched him.

"Goddamn, a drink at last!" Jake Frederickson muttered.

"Oh man, am I thirsty?" Carwold echoed.

The two men could hardly wait to get their hands on the canteen. Only the girl remained unmoved by the sight.

"Pour me a drink— *Red, oh God, what are you doing?*" Frederickson's shout turned into a roar of rage.

MALUMBY HAD screwed the top from the canteen and had up-ended it. The water was gurgling from it and was dropping straight to the hungry sands of the desert.

"Red, goddamn you!" Carwold screamed, trying to snatch the canteen from Malumby's hands.

Malumby laughed and shoved him away. The water continued to gurgle from the canteen. The stream stopped. A few final drops ran out. Malumby, laughing again, threw it back over his shoulder. It struck the sand and rolled and stopped.

In this place of death, water was life. Malumby knew it, Carwold knew it. Carwold thought that Malumby's act of pouring the water on the sand meant that he was going to die here. This just didn't happen to be true, but Carwold didn't know it. He made the one fatal mistake. He thought Red Malumby had double-crossed him. Fear rose in him, and he pulled his gun.

If he had just laughed, if he had just been able to swear, nothing would have happened. But he could neither laugh nor swear. He reached for his

gun.

Before Carwold had gotten the gun up, Malumby had put a slug through his chest. Carwold, sprawling backward on the sand as the explosive bullet struck him, writhed and died.

The three men and woman stood staring. Jake Frederickson did not move a muscle. The girl looked soberly thoughtful. Burton just sat and watched. Malumby shook his head and growled. "The damned fool thought I was double-crossing him. I wasn't but he didn't know." Malumby looked at the muzzle of the gun as if the sight of it had somehow suddenly become a little repugnant to him, then shrugged.

"He oughtn't to have been such a damned fool as to think I would double-cross him. Come on, let's move along. We got places to go."

The girl looked silently at Malumby and came walking across the sand to Burton.

"I am sorry you had to see this but that is the way people are some time," Burton said.

"Yes, I know. They're just scared."

"But you're not!" Burton said.

She shrugged. "Why should I be afraid?"

"Oh, Lordy!" Burton said. Inside of him he was suddenly aware of a feverish wish that this girl might have been his daughter. He would have liked to have had a daughter like this, who was in utter and complete control of herself and of the moment, and of the participants in that moment. Sure, she had been terrified when Carwold had been killed. Who wouldn't be terrified at the sight of real death coming up so suddenly and so unexpectedly. But this girl had been able to control her terror. She had kept from screaming, from running, from finding relief in hysterics. In so doing, she had come up so tremendously in the eyes of Richard Burton that he

was finding himself wishing she was his daughter.

In this moment, she was stronger than Red Malumby, than Jake Frederickson, and maybe stronger than Richard Burton.

But she was more of a mystery than ever. If she was in such perfect control of herself, what was she doing here in this desert? What tremendous force had brought her here to face death unflinchingly.

She must be in love, Burton thought. But in love with whom?

She looked at him, one single long searching glance, then went striding on past him. He had the dazed impression that she had evaluated him too, as she had evaluated such diverse factors as Red Malumby and Sam Carwold and sudden death and water spilled forever in the sand—and was moving resolutely on in pursuit of some goal that only she knew.

FREDERICKSON and Malumby were coming along too. Frederickson was weeping now. He was protesting over and over his loyalty to Red Malumby, yelling that no matter what happened, Red could be sure that one man would never double-cross him—and that this man was Jake Frederickson.

Malumby wasn't buying much of it. He wasn't even listening to Frederickson. He was watching the girl, he was following her. But Jake was apparently distracting him. Finally he said, "Shut your big mouth, Jake."

Jake Frederickson shut up.

Burton started to move forward. Malumby caught up with him, walked beside him. Malumby's eyes were on the girl.

"She's kind of a puzzle, isn't she?" Burton said.

"Puzzle? She's more than that. With a woman like that to stand be-

side him, a man could lick the world!"

"So he could," Burton said.

"Damn you, don't you go to getting ideas!" Malumby shot out. Then he apologized, a little. "Aw, Pop, you're too old for that, I guess."

"Yeah, I guess so," Burton said.

Neither of them mentioned the subject again. Nor did either of them mention the dead man or the empty canteen back there on the desert sands. Instead Malumby went to another subject.

"Pop, you're sure we'll make Zanadu today?"

ZANADU was not a Martian name, it was a name given by humans to a place on Mars. It came, of course, from the lines: "In Xanadu did Kublai Khan, a stately pleasure dome decree, where Alph, the sacred river ran, through caverns measureless to man, down to a sunless sea."

No one remembered the name of the man who had given the name of Zanadu to the place where they were going, but that man had certainly known his Coleridge. When he had called this place Zanadu, he had not had in mind any "stately pleasure dome" aspects of the area. There were no pleasure dome aspects in this Zanadu, or not as human understood pleasure. The man who had named this place Zanadu had had in mind "the caverns measureless to man," aspect of the place.

Zanadu was exactly that—measureless to man. So measureless that only one man had ever gone there and had gotten away safely. Richard Burton, now on his way back to Zanadu. Scientific expeditions had asked permission to go there and had been refused, for reasons known only to the Martian mind. Thieves had gone there, intending to loot the place. One of the thieves had been found wandering in the desert, near death from hunger and from thirst. The skeletons of

other intended thieves had been found.

Thieves going to Zanadu always left very fast. No thief was ever actually able to explain why he had left so fast, but unquestionably two things were true: there was loot to be taken in Zanadu, and there was also something in Zanadu which sent marauders hurrying away.

There was loot in plenty in this secluded Martian city. The place was unguarded as human understood the word. Or so it looked from the outside.

Burton cast a glance at the small orb in the sky, the sun as seen from Mars. "We had better reach it today," he said. "Or tonight. Tomorrow, some of us will be crawling."

"I figured that," Malumby said. "That's why I emptied the canteen. Sort of burning-our-bridges act. We got to get there, now."

"I see," Burton said. The point was, slightly obscure but valid just the same, or valid enough to have resulted in the death of Sam Carwold. "Well, I believe we'll be in bad enough shape when we get there to fool even Duma Shor." He felt a slight twinge of fear at the thought of fooling Duma Shor. That Martian was old and wise beyond the understanding of an Earthman. Fooling Duma Shor was like trying to fool a god; you took a mighty big chance in trying it. "We ought to make it all right."

"Okay, I'm running on your orders," Malumby said. "They took you in when you were more dead than alive and you are the only human being they have ever taken in. If being more dead than alive when you get to Zanadu is what gets you in, then by God, that's exactly the way we are going to be when we get there. We

got to stay there long enough to get the job done."

66 "WE CAN do it," Burton said.

His dry voice expressed his profound belief on this point. Spots were already beginning to appear before his eyes, like dancing ghosts at the edge of the world, and his legs were so heavy that he could hardly force them forward.

"One thing I don't get?" Malumby said.

"What?"

"I don't get your place in this picture," Malumby said. "Me, I'm easy to figure. I'm a thief and I know it. Jake, he's a thief and he knows, but a weak one and he knows that too, so he will never double-cross me. Nancy, I can't figure at all. And I can't figure you."

"What's so hard to figure about Nancy?" Burton asked.

"I don't know. I've been trying to—well, hit it off with her. It was no go. But as soon as I whispered the words to her that I was coming here to loot this place, that I knew you and that you knew exactly how to get us in, then she began to play up to me. I kinda get the idea that what she really wanted was not me, but to come here. And that makes no sense at all. Because nobody in his right mind would want to come here!"

"I see," Burton said. The girl had become more of a problem to him than ever.

"But we were talking about you," Malumby continued. "And the fact that I can't figure you."

"What's so hard about that?"

"Your motive, your real honest-to-God motive," Malumby answered. "You ain't a thief, like me. You are, or you have been, a pretty big guy somewhere. No, don't shake your head at me, I wasn't born yesterday, I know an ex-big-shot when I see one.

Yet you came once to this city of Zanadu when you were about dead—"

"I told you I had been a member of a scientific party and had gotten lost from it," Burton said stiffly. The reason he had for getting lost from that scientific party was something he had no intention of revealing to anyone, let alone to Malumby.

"Yeah, you told me that, pal, but you never told me why you had gotten lost."

"Why does anyone get lost?" Burton answered irritably. He felt panic begin to rise in him. This Red Malumby, even if he was a thief and a killer, was nobody's fool. He saw now that he had been making a grievous mistake about Red Malumby; he had been underestimating him.

Red laughed. "We won't argue about it, Burton. We'll let it go the way it lays. That's only part of the stuff about you that I can't figure. The rest of it is: while you ain't a thief, yet you are guiding us here to Zanadu; you are showing us how to get into the city, how to get ourselves accepted there. When we get together the pile of stuff we want and the ship lands to take us off, and it'll land within twenty minutes after I get busy on the radio transmitter I got in this pack on my back—you will go away with us. At least *you* said you will—" He looked questioningly at Burton.

"I'll go away with you," Burton said harshly. "I'll have to go. I couldn't stand staying there and facing Duma Shor, among other reasons. I'll also take my fair share of the loot."

"Why do you want any loot?"

"Why—well—" Burton stuttered over the words. "Why does anybody want money?"

Malumby laughed again. "Okay,

we'll let it go the way you want it. You'll get your share; to me, it don't matter-what you do with it."

"What do you want your share for?" Burton questioned.

"That's easy. I want it to cut a swath with. No, it ain't quite that simple either. With the right kind of money backing me, I figure I see a way to sort of become a big shot around Mars myself. That's why I want my share of the loot. But I still haven't heard why you want your share. What's the cross you're bearing, Burton, that's so damned heavy that you may have to spend maybe half a million bucks to get somebody else to carry it for you."

ONE THING about this thief, he was shrewd. The question: How to answer him convincingly, how to lie to him? Burton thought about that, thought hastily and feverishly. He could see no way for him to think up a convincing answer on the spur of the moment. Even an extra moment's hesitation was in itself a *kind* of an answer. He didn't hesitate.

"I've told you once, it's my business," he answered.

Red Malumby laughed. "And that's exactly the right thing to say to me, sometimes. If you had tried to lie to me I might have been tempted to leave two corpses back there in the desert. Two dead men wouldn't sit any heavier on my conscience than one. But you can tell me to go to hell—and I'll do it." The glance he threw at Burton was shrewd and appraising. "You and me can get along together, Burton. When we make our getaway from Zanadu, and you get your private business finished, look me up. We'll make a team that can go places."

"What if I don't want to go your way?" Burton answered.

"Oh, each of us will have to make

his own decision on that angle. If you want to go with me after we get finished here, I'm ready." The man looked and sounded as if he meant every word he said.

Burton was too confused and too shocked to think. If he had lied, Malumby might have killed him. The big thief was certainly capable of such an act. A shudder passed over Burton. It had been so very close and he had not known it.

There was one thing wrong with death. It came up and looked you right in the eye and you didn't recognize it. He thought, with desperate bitterness, that there ought to be some sort of supernatural law which required death to wear a label, a placard saying I AM DEATH.

But if death wore a label, the game would be much too easy. That was the way a man learned. Or the way a man died, if he made one mistake too many.

Richard Burton knew exactly and precisely the nature of the worst kind of a mistake a man could make. He had made one of them.

The mistake was in coming here, to the "caverns measureless to man" city of Zanadu, where the life of a man was not worth the price of a puff of smoke in the wind. The mistake was forcing him to risk his life, it was forcing him to become a thief. Either in the end, or somewhere along the line, he was reasonably certain his mistake would kill him.

But that was the chance he had to take.

Within the next hour, he thought of one mistake they were making. At the thought of it sweat popped out on him.

"Look," he told Malumby. "We can't go straight into Zanadu. They would know we were coming there deliberately if we did that. No one who goes deliberately to Zanadu

ever stays there long except Martians, maybe. No human has ever done it. So we can't go straight there either." His pulse began to pound at the thought.

"You oughta said that before I threw away the water," Malumby said, angrily.

"But hell, I didn't think it was important."

"It's the damned things that you don't think are important that turn out to be the most important of all," Malumby shouted. "Even if we are almost dead of thirst when we get there—well, surely they'll let us in."

"They'll let us in all right, but we can't go *straight* there."

"The hell we can't. We can if we gotta." Jake Frederickson and the girl had stopped and were listening.

"You went straight there!" Malumby continued.

"What I did was wander in the desert, until I fell from weakness. Somebody found me and took me there. Death was what I was looking for, and death was what I thought I had found when I passed out. When I recovered consciousness, I discovered I had been carried into Zanadu. I had been near the place without realizing it when I passed out. They had either seen me in the desert and had sent for me, or some Martian had found me and taken me there. I got there, though I don't know exactly how."

The anger slipped away from Malumby's face. "I see," he said. "And that means—"

"It means we're going to have to make them come out and meet us. The only way we can do this is by playing dead."

"Play on their sympathies, eh?" Malumby ruminated. "What if they don't come?"

"Then we'll just stop playing dead," Burton said.

"But—"

"Yeah, I know. We'll *be* dead."

"Hell on wheels!" Malumby gasped.

"Are you scared to gamble with death?"

"Hell, who hasn't been gambling with it all his life? I've always won that gamble somehow. I'm not too scared of it to take the chance again, except, brother, I know I don't like it. I've been too close to it at times ever to want another taste."

"Well, you don't have any choice any more," Burton said.

"Hell—" Malumby cast a hurried glance over his shoulder as if he was regretting a lost canteen left back there in the dry desert sands.

"Don't be Lot's wife," Burton said.

"What?"

"She looked back. We can't."

For a moment, Red Malumby looked like he was going to explode. Then he began to laugh. The wild laughter had a strong tinge of hysteria.

They went forward, toward Zanadu.

ZANADU lay to the left. You looked along a backbone of barren rock that rose for miles from the desert, a dike or an upthrust of some kind, then you saw the trees begin, those wonderful Martian red walla-walla trees which distill their own moisture from air that has hardly any moisture in it, distill enough of it for themselves with some left over to dampen the ground around their roots, so that other vegetation can grow. There was a forest of the trees, an oasis of them, thousands of them there where the rocky dike and the desert ended. In them was Zanadu.

From this distance, seen across the shimmering heat waves of the desert in the mid-morning sun, Zanadu looked like a picture of paradise. Earth Arabs, living in an arid land

of sun and wind and little rain, dreamed of heaven as an oasis. To those Arabs back on Earth, an oasis was life.

On Mars, also, an oasis was life.

Zanadu was an oasis.

Four humans looked longingly at it. Looked at it as they looked at life itself, as being something utterly desirable, but also very, very far away. They, looked at Zanadu from red-rimmed eyes that no longer correctly reported what they saw, looked at it and tried to wet dust-dry lips with tongues that no longer had a trace of moisture left for them to use.

They had sighted Zanadu the evening before. But they had not gone to it because they had been afraid. They had spent the night here in this desert, still refusing to go to Zanadu, trying to force some resident of Zanadu to come to them, to take pity on them in their misery.

At mid-morning, no one from Zanadu had seemed even to see them, to note that they existed.

On Mars, the utterly dry air sucks moisture from the human body as a strong hand squeezes water from a sponge. Humans, having evolved in the much damper atmosphere of earth, find that their bodies do not readily adapt to the dryness of the Red Planet, with the result that a few hours without water, a period of time that to the native Martian would be too inconsequential to notice, the human body becomes so badly dried out that death will certainly result in a few more hours unless moisture is obtained.

The four humans were in the shadow of a rock, "the shadow of a great rock in a dry and desolate land," was just as true a picture on Mars as it was on Earth during the time Psalms were being written.

Red Malumby for the hundredth time lifted a hand to shade his eyes and squinted across the sand toward

Zanadu. "Still nobody in sight," he muttered. His voice was a hoarse rasp that had lost all resemblance to the tones of a human being.

JAKE FREDERICKSON sat with his back against the rock, his eyes closed, a continuous mumble of words coming from his mouth. To Burton, it sounded very much as if Frederickson was trying to pray. Burton rather envied Jake this ability. It was an accomplishment he himself had lost.

The girl, Nancy, sat very still and very stiff against the rock. She seemed actually to have become a part of the rock itself, immovable, fixed in position like the granite of the hills.

"God, somebody's got to come," Malumby croaked. He glanced from red-rimmed eyes at Burton. "If you guessed wrong—"

Burton did not spread his hands. He hardly had the strength for that. "Then I just guessed wrong," he said.

"Damn you, if you did—" Hot anger showed in Malumby's eyes.

"Are you trying to scare me, *now*?" Burton said.

Malumby took his hand away from the pistol. Jake Frederickson stopped praying and rose creakingly to his feet. He stared along the rocky dike. As if he was just seeing them for the first time, he gasped. "Walla-walla trees, by God. Hey, Red, see them trees!" Excitement crept into his voice.

"I've been seeing them, off an on, ever since sun-up," Malumby said.

"But where them trees grow, there's water, Red. You know that; surely you know that."

"I know it," Malumby said.

"Water, Red, don't you understand? Water!"

"Set down," Malumby said.

"Set down, hell!" Frederickson took one jerky step toward the trees he saw and the water he imagined.

Malumby drew the gun. Malumby

might be bleary-eyed from tissue hunger but his reactions were still in good working order. His draw still had the same blinding speed.

"Set down," he repeated tiredly, over the muzzle of the gun.

Jake Frederickson literally collapsed. He clawed his way back to the rock and huddled against it, shivering and trembling. His eyes were closed but his lips moved again, in muttered prayer.

"You really got the Indian sign on him," Burton observed.

Malumby shrugged and slid the gun back into its holster. His manner said the whole matter was unimportant. His manner also said that he would have killed Frederickson and that this would have been unimportant too.

The girl got slowly to her feet.

"Hey, where are you going?" Malumby said.

She pointed toward the walla-walla trees. "There," she said. "I'm going there." There was no defiance in her voice but the tone said she was stating a definite fact, that she was going there, and all hell wasn't going to stop her.

She started walking off across the sand. She stumbled a little, caught herself, moved on again. Open-mouthed, Malumby stared at her. He made no attempt to stop her. Seemingly he did not know what to do.

It was Burton who got to his feet next. "Let's go, boys," he said, speaking from lips that could hardly form words.

"By God, it's okay with me," Malumby croaked. "I'd just as soon die over there as over here. Come on, Jake."

Stumbling, staggering, leaving behind them a crooked trail in the sand, the four went blindly to Zanadu. Alone of all of them, as if some deep inner drive forced her forward, the

girl walked steadily.

They were within a quarter of a mile of the trees when she collapsed.

"We'll have to carry her," Malumby said.

Burton, through glazed eyes looked toward the trees. Moving toward them from the outskirts of Zanadu, walking with a sureness that was full of meaning, were four blue-clad priests coming from the trees.

"Help's coming," Burton muttered. He had one glimpse of them. Then the sand of the desert seemed to come up and strike him in the face. He knew vaguely that he fell, that he was fainting, knew also that voices muttered around him in the soft Martian language, that he was being lifted. Then he didn't know anything.

RICHARD BURTON awakened slowly. In his ears was the soft muted chiming of temple bells, the magic bells of Zanadu. Hearing them, he went back to the time when he had first heard them, when he had first come to Zanadu. He had heard them then as a sound from another world, gentle, peaceful, quietly soothing. They had been the most peaceful sound he had ever heard, that other time.

Now they were not quite so peaceful. Now there was a discordant note in the ringing of the bells of Zanadu. He knew about them, the priests here made them by some special process they had never revealed, and they were everywhere, in the trees, ringing as the trees moved when a wind blew in from the desert, in the simple houses between the trees. Some of them had been set to operate by mechanical means, others operated by some magnetic control that was another Martian secret.

Like prayer wheels in Tibet, there were bells in Zanadu.

Now, somehow, they seemed to

Richard Burton to be ringing a little out of tune, out of harmony with each other. A little tremor of alarm went through him. *What was wrong with the bells of Zanadu?*

He tried to detect the wrongness, to dissect himself and to discover what there was in him that might make the bells sound different. He could detect nothing. He decided he did not know and did not care, reached this decision before he opened his eyes.

He saw instantly that he had been in this room before. They had brought him back to the same room to which they had taken him when he had come to Zanadu that other time. That other time! Then the bells of Zanadu had been a beautiful chiming ringing in his ears.

He forced the thought of that other time out of his mind. Never think of that! Never. His outraged mind flung back the words at him. Never, never, never! like a phonograph with the needle stuck in the same groove. "That's the only thing you've ever really been thinking about." He forced the stuck needle back down inside of him.

On the opposite wall, directly in front of his eyes, was a picture mosaic. He had seen it too, that other time, but seeing it had not mattered. He had seen it through dazed eyes, that other time, as being something very beautiful, a scene on Mars, the red deserts and the blue mountains with the sun on the far horizon, the sun shining over a desert where cacti were in bloom and where a lone Martian camel with its single rider wound its way toward a city hidden by walla-walla trees, a city that looked remarkably like Zanadu.

It was a beautiful mosaic painting. Years of patient effort had gone into this work. Looking at it as he awakened, Burton saw instantly that this picture mosaic was worth a fortune.

Each tiny piece of the mosaic was actually a jewel. Each red cactus bloom was a ruby. The far-off sinking sun was a yellow sapphire. The frame that surrounded the mosaic was gold, two inches wide.

That other time, he had not noticed the fact that this painting was worth a fortune. That fact had not mattered then. He noticed it now. And he instantly saw one other thing: that if he could take this mosaic away from Zanadu with him, he could sell it to a museum on Earth for the limit of that museum's resources. To steal this one mosaic would put him on easy street forever.

And this one mosaic was as nothing compared to what was in Zanadu. A simple water pitcher was sitting on the table near him, a common thing on Mars or Earth, but the glaze on the pottery pitcher told him that this was a rare object indeed, and might bring as much as five thousand dollars on Earth.

Where every object was so valuable, a thief could make few mistakes.

Yes, he had it. That one mosaic would be enough for him. Now to get it and to get away. Now to find Red Malumby and Nancy and Jake Fredrickson and—Burton jerked startled eyes around as the door of the room opened.

DUMA SHOR stood there. The Martian was tall and lean almost to the point of emaciation. He wore sandals. A light yellow robe was thrown carelessly around his shoulders. He stood smiling in the doorway. "Ah, my friend—" That was as far as he got. Little by little the pleased smile began to go off his face.

Burton watched with alarm as the smile vanished. It went slowly, a smoothing out, one wrinkle at a time. Fear did not replace it but the expression that seemed to come into ex-

istence there was one of such utter sadness, such depths of understanding that Burton felt shock rise in him. What had happened to make Duma Shor change like this. Duma Shor had been his friend, that other time.

He forced the shock out of his mind, forced his face into a smile.

"Hello, Duma Shor, you old sphinx." He spoke in Martian. "It's good to see you again."

Burton said the words and meant them and at the sound of them, something of the smile came back to the face of the Martian.

Duma Shor came on into the room and sat down on a chair worth a king's ransom. Burton swung himself out of bed. He was fully clothed; they had not undressed him, but had taken off his shoes. He pulled them back on, hastily. Might need shoes at any moment, if the time came to run.

"It is nice to hear you say that it is good to see me," the Martian said, politely.

"Glad to be back here again," the human said. "But one thing puzzles me—the bells? What has happened to the bells of Zanadu?"

"You have noticed the change?" Duma Shor said.

"Yes. What caused it?"

Duma Shor sighed. "So many have asked that question and so few have lived to find the answer."

"What? Do you mean there is something dangerous in the sound of the bells—that they are a warning of some kind?"

"Yes, they are a warning. They are a warning that Death came into this room with me." Duma Shor's eyes were fixed on the eyes of the human as he spoke. "I know it. But do you know it?"

"What—Why, that's nonsense. No one came into the room with you." Burton felt sweat rise on him.

"Ah," Duma Shor said.

AT THE sound something seemed to come out of nowhere and clutch Richard Burton around the throat. An invisible hand grabbed him. He could feel fingers closing over his windpipe, clutching him, shutting off oxygen and air from his lungs, shutting off life itself if long continued. He snatched up both hands, jerked at—nothing.

The grip of the clutching hand relaxed and was gone from his throat.

He looked down, dazedly, to see what had grabbed him.

Nothing was visible. "Wh—what was that?" he yelled.

The Martian watched him from eyes that held no hint of sympathy or compassion. He did not answer.

"Damn you!" Burton screamed. With the scream, the invisible clutching fingers seemed to grab again at his throat. He jerked at them, turned startled eyes downward. Nothing was there. Or nothing that he could see.

"Is it as bad as that?" Duma Shor said quietly.

"As bad as what? What are you talking about. What was that thing that grabbed me?"

"We call it the Zanadu effect!" Duma Shor answered.

"Zanadu effect? What—I mean—" Burton wiped spurting sweat from his face. "What is it?"

"It is death, eventually, if you do not conquer it or get rid of it?"

"Death? But something grabbed me. I felt it. Around my throat."

"Did you see it?"

"No. I just felt it."

"You will never see it. But it will always be here. Either conquer it or run?"

"How does one conquer it? How does one run from it? I mean—"

"Usually, we Martians conquer it by not being afraid of it. It doesn't choke nearly so badly if you are not afraid. As to running from it—" Duma

Shor swept up his hand to the open window and to the desert. "We will give you food and water. You can go away from here at your will."

"But can I?"

"Oh, sometimes the Zanadu effect follows you, for a little ways. But usually not very far. Then all you have to fear is the desert."

The desert! That was enough for any human to fear.

"But I was here before. Nothing attacked me then." At that thought, Burton felt a little courage creep up in him.

"Yes, you were here before. But the conditions of your coming now must somehow be a little different."

"D-different?" Were these Martians telepaths? Had they used telepathy to detect the secret that he and the others were hiding so well, their real purpose here? "But we were as good as dead men. We did not choose to come here. We were out of water. We had gotten lost. There was no other place for us to go. Surely you will not turn loose this invisible monster which you call the Zanadu effect upon helpless strangers."

"Never," Duma Shor answered.

"That's good." At the thought of safety, Burton felt much better, much relieved.

"It turns itself loose," Duma Shor said.

"You mean, you can't control it?"

"Of course not."

"But you live here with it and it never bothers you," the human protested.

"Perhaps that is because we have learned to live with it," the Martian answered.

"But what is it? I mean, if you can tell me."

"What is it?" The Martian seemed perplexed. "How can I say for sure what it is when I have never seen it? It is something exists here in this grove of trees, exists perhaps as a

hovering god."

"W-what?" The quaver in Richard Burton's voice was very clear now, especially to him. What was this talk of an invisible, hovering god? He looked more closely at Duma Shor. The Martian was calm and poised and completely at ease. If there was an invisible hovering god here in Zanadu, Duma Shor was not afraid of it.

Burton's mind was working faster now, as if driven by some desperate emergency into frantic speed. Suddenly he saw the answer. This talk by Duma Shor of an invisible hovering god was a subtle psychological trick. Duma Shor was trying to scare him. In some way or other the Martian had divined that their purpose here in Zanadu was to loot the place. There were no defenses in Zanadu, no real ones. Yet the place was obviously defended by some means, otherwise the loot of ages accumulated here would already have been stolen by both Martians and humans. Burton knew his own kind. They would steal.

Since they hadn't been able to steal from Zanadu, there must be some sort of protection around the place. What was this protection? What could it be except some subtle psychological device that the Martians knew about, that Duma Shor had used on him without his knowledge.

"It's got to be that," Burton muttered. At the thought, he felt much better. Duma Shor stood regarding him thoughtfully. Now the faintest trace of a smile was visible on the Martian's face. He nodded, as if to himself. Behind him, the door opened. Malumby stood there. Red didn't look so good.

Malumby's eyes were wild, his shirt was torn down the front, and he had a gun in his hand. The gun pointed toward Duma Shor.

"YOU—WHERE'S Jake Frederickson," Malumby shouted.

"I do not know," Duma Shor answered.

"Damn you, don't lie to me! What have you done to him?" Red Malumby made a savage thrusting motion with his gun.

Duma Shor was utterly unconcerned. The bells of Zanadu gave out a wild clamor as if they sensed the imminence of death and Rich Burton felt a corresponding tremor pass over him. He knew Red Malumby. Red would just as soon pull the trigger of that gun as not.

"I have done nothing with him," Duma Shor answered. "And if you will take my word for it, nobody else has done anything to him either."

"Aaaah!"

"He's telling the truth," Burton spoke quickly. "One thing I will say for these Martians here, they always tell the truth. What happened to Jake?"

"I'm damned if I know. He's gone."

"Gone where?"

"I don't know that, either."

"Could that be your friend?" Duma Shor answered, pointing through the window.

Malumby started to look, then realized that the purpose of this question might be to trick him into turning his head. A snarl on his face, he jerked his eyes back to Duma Shor. "Damn you, you can't fool me with that kid stuff!"

Duma Shor had not moved.

That fact seemed to startle Malumby. If Duma Shor had been moving, trying to escape or trying to draw a weapon of any kind, Red Malumby would have killed him. But Duma Shor was not moving. There was no sign of threat on his face. Malumby stood staring at him.

Burton did the looking out the window.

Opening outward there, through an avenue between the walla-walla trees, the desert was visible. Like an ant in the far-off distance, an object was moving. It was Jake Frederickson, running straight into the open desert.

"Great God, you've got to save him!" Burton gasped. "He'll die out there!"

"Yes, I am sure he will!"

"But you've got to send somebody after him."

"What for?" Duma Shor answered. "It is not possible to catch one who flees from Zanadu."

"But he'll die!"

"Yes, but what of it?" For an instant, something very like pain crossed the face of Duma Shor. He staggered, just a little. Then he spread his hands, as if intoning a ritual, and began to speak. "All that has known life must know death. What does it matter if it comes sooner or later? It is coming. And no man of Mars can evade it."

Yes, it was a ritual, a prayer of some kind. Duma Shor closed his eyes when he spoke and intoned the words as if he meant every one of them. He opened his eyes, spread his hands. "You see how simple it is."

"As simple as mud," Malumby growled. "Hell, I know my number has gotta come up some time. The only question is: when?" He looked out the window at the disappearing figure of Jake Frederickson. "I oughta killed the poor dope when I had the chance."

"It is his right to die when his time comes," Duma Shor answered. "It is not your right to determine that time for him."

MALUMBY'S grunt said he considered it his privilege to reserve this decision for himself. His eyes sought Burton. He jerked his

head toward Duma Shor. "Can he understand English?"

Dazedly, Burton shook his head. "No." He tried to think why the question had been asked.

"Well, I got everything all fixed. I got a pile of stuff that's worth a fortune all gathered together. I've already put in a call for a ship and got back a report. The ship's on the way, Burton." Malumby's eyes glowed.

"You are leaving?" Duma Shor spoke.

"Hey, how did you know that?" Malumby exploded. He jerked startled eyes at Burton. "But you said he didn't understand English."

"So far as I know, he doesn't," Burton answered. He was really startled now. In all the time he had spent once in Zanadu, he had never heard a word of English spoken. How had Duma Shor understood them? Was telepathy actually involved here?

"If you are leaving will you permit me to give you a present?" the Martian spoke. Turning to the wall, he removed the priceless framed mosaic, handed it to Burton. "Will you take this, as a parting gift?"

"But that's worth a fortune," the astonished Burton blurted out.

"So I know," Duma Shor answered. "But anything worth stealing, is also worth giving away."

Turning to the door, the Martian quietly exited. He left behind him two utterly astounded human beings.

"Anything worth stealing—"

Burton had seen only one thing as Duma Shor left, the faintest trace of a smile on the ivory clear face—and the faintest twitch, as of beginning pain.

"He gave it to me," Burton whispered. "Gave it to me."

Malumby's decision was instantly made. "You can have that. I've got a pile of stuff together already. We had better get out of here, but fast." His

decision made, he turned to the door.

The girl was standing there. She had a gun in her hand. "You utter fools," she shouted. "I didn't come here looking for something to steal, I came here looking for a man."

"A what?" Malumby gasped.

"The man I love," the girl answered. Her eyes came up to Burton. "He happens to be your son."

"My son!" Burton gasped. "But he isn't here. That's why I was trying to steal from this place, why I came here the first time. My son and I were on a scientific expedition. We fell out, quarrelled. He wandered off, angry at me. I tried to find him. I got lost, wound up here. After I got well, I began to look for him. The only story I could get was that some Martians had seen him in the desert too. They seemed to know something, but they demanded huge sums of money before they would tell me what they knew. So, if I needed money, I came here."

"Your son happens to be here too," the girl answered steadily. "I had a letter from him, a letter that he sent by a native. He came here looking for you, trying to find you." Accusing tones sounded in her voice as she spoke.

"I can't believe it, I don't believe it," Burton babbled. "How could he live here in Zanadu?"

"The same way you could, by not caring whether you lived or died when you came here. You thought you got in here the first time because you were near death. That was only partly true. You got in because you no longer cared whether you lived or died. You thought you had lost your son. Nothing else mattered after that."

She spoke with calm finality.

"But—but—but—"

"The only *but* is that the ship is

not leaving here until I find Jack Burton," the girl answered, over the muzzle of the gun.

"To hell with Jack Burton!" Malumby exploded. He started toward the door.

The girl faced him. "Red, I used you. I admit it. I cozened you into bringing me here because this was where I wanted to come too. But I am not leaving here without Jack Burton. Now if you want me to pull the trigger, just try to leave."

She meant it, beyond the shadow of a doubt she meant it.

"But—"

THE DOOR was opening again.

Duma Shor and another man were standing there. The man was short, with alert black eyes. His face was thin and it showed traces of recent suffering, as if some great illness had come over him and he was only now recovering from it. The girl took one look at him. And dropped her gun.

"Jack, I've come for you. Jack, are you able to travel now?"

"Sure thing, Nancy," the young man answered. She was in his arms, crying and kissing, all at the same time. The young man's eyes came up to Burton. For a long moment the eyes of father and son met. Both looked startled, both looked as if they were seeing a dream come true.

Both hands came out at the same instant. "Dad!" Jack Burton gasped.

"Son!" Richard Burton spoke.

Then there were three people crying in each other's arms, three people who had found each other, and had found happiness.

Then Burton looked around toward Malumby. Red Malumby was on the floor. He was gasping and moaning, his eyes were protruding from his skull.

"What—"

"It is the attack of the god of Zan-

adu," Duma Shor answered calmly enough. "You humans, I believe, call it conscience. Or so your son has told me, though there may be some difference between what you humans mean by conscience and what we Martians mean by it."

"Conscience?" Burton gasped. "But that man is dying."

"No, he isn't. This is the attack. He will recover from it and will begin to run. You see, the bells—" he paused, groping for words.

"The bells of Zanadu are the trick to the whole thing," Jack Burton spoke quickly, to his father. "They are always a little out of tune. I don't pretend to know exactly how the Martians work it but they have worked out some system of sound waves and have set up this system in the form of bells. When the bells sound out of tune, it means simply that a man—or a Martian is being made—afraid. If he comes here with nothing to be afraid of, he can stay here. But if he comes here with theft or hatred in his mind, the bells drive him—well insane."

"The rest of the answer is, leave a little of the being afraid always in you," Duma Shor spoke. "Just enough to twitch a single facial muscle. No more than that. Sweat all the rest of it out of you. Then you, or anyone else, can stay in Zanadu." He broke off. Through the trees a man was running. It was Jake Frederickson. He was calling, feverishly. "Red, Red!"

"And one other little thing saves you from the bells of Zanadu," Duma Shor spoke. "That is loyalty, the willingness to come to help a friend. That man out there got scared and ran. Then he remembered he could not desert a friend. So he found the courage to come back."

Jake Frederickson came snarling into the room. "I couldn't run off and

leave old Red." He grabbed the body of the unconscious Red Malumby in his arms.

Out on the desert, with a vast roar of landing jets a ship was coming down. The ship that they had planned to have come for them!

With Frederickson carrying the unconscious Red Malumby, with Rich-

ard Burton carrying the mosaic, they entered the ship. Duma Shor watched them leave.

Across the sands the bells of Zandadu rang clearly and sweetly, but with just the slightest trace of discordance in them, just enough of a jarring note to make a man happy to be alive.

THE END

"RUGGEDIZING"

★

By A. T. KEDZIE

★

A GOOD deal of the energy of electronic equipment manufacturers is going into the production of sturdier and stronger components. There was a time when if you so much as breathed against a radio tube for example, it would shatter under the strain. But with electronic instruments and gadgets filtering so strongly into everything we use, strength and endurance is becoming an important sales point.

Until recently this wasn't necessary. Most radio tubes went into home radios. Few are used in industry. Now the picture is changing with industry and mobile communications taking over everywhere. Rugged, tough tubes and parts are needed. Consequently the manufacturers are straining themselves to produce these rug-

gedized equipments.

From the labs come developments like radio tubes which you can actually drop without injuring! Actually there isn't too much difficulty in producing these ruggedized parts. It's just been a set-up where they weren't really required.

But nowadays, the radio of a jet plane pulling out of a power dive at six gees can't afford to fail. Men's lives are at stake in a steel mill controlled by electronic tubes. They can't blow out. Therefore the ruggedizing is essential.

Next time the repairman replaces the tube in your TV or your radio he's likely to ask if you want them "weak" or "strong". Perhaps not quite that—but tough tubes are here to stay!

★ ★ ★

MIDGET ROCKET ...

★

By WILLIAM KARNEY

★

THE USE of scale models in scientific investigation is no novelty. We have huge laboratories for marine research, for example, where small accurate scale models of ships are tested in basins. Similarly the aircraft industry uses models and small wind tunnels. Cars are often made in miniature as are even factory layouts. By principles of extension the knowledge gleaned from the model can be carried over to the full-sized project at great savings in space, money, and energy.

The most recent miniaturization is that of rocket motors. Few people realize how incredibly expensive full-scale testing of rockets and rocket engines is. The facilities required are enormous and vast testing areas are required. The consumption of fuel reaches fantastic proportions. A German V-2 will consume as much as twelve tons of fuel in one minute! When

you have a V-2 motor on a test-stand and you're trying to check its performance for minutes at a time, in terms of thrust, fuel consumption and so on, the bill for fuel, especially if it is one of the newer ones, may be expensive—to say the least!

To overcome this, small-scale rocket engines are now being tested. In every respect they behave exactly like their bigger brothers, except that instead of using twelve tons per minute, they consume a mere pound or two per minute of costly research fuel. The answers they give to the researchers are perfectly applicable to the full-scale rockets though and the tests can be conducted with one-tenth the effort and a dozen times the speed.

Only the final run need be made with a full-blown job—and that is just in case...

★ ★ ★

GUTENBERG'S GENIUS



By SANDY MILLER



NO ONE questions the oft made statement that the world's greatest single invention was that of movable type. The Chinese and Gutenberg, both of whom are credited with the invention, enabled knowledge to be disseminated to everyone. With very little change printing came down through the ages to the late nineteenth century when Morgenthaler's invention of the linotype, which set type by machine, changed the whole picture of the printing industry.

We've often talked about the new revolution which is certainly coming in the same industry. When the type comes from a linotype it must be arranged in blocks and then a copper matte must be made of it, a long, time-consuming, tedious complex operation. Science fictionists have often predicted that the time would come when this would no longer be necessary. That time is about here. In fact all over the world a number of inventions have popped up which change typewriting at a keyboard directly to the finished engraved plate ready to be sent to the printing

press.

The latest report on the matter refers to the American physicist, Dr. Vannever Bush, along with two French cohorts, and his development of a machine which will do just what we've been talking about! Naturally a technical change of this type takes time, but it is coming inevitably.

At present the highly developed printing industry is ripe for the utilization of more and more machinery which will place it in an almost automatic class. With labor unions cooperating actively in the installation of this machinery, modern printing is well on its way to being transformed.

Since all phases of printing are being so automatized, type-setting, making mattes, press-operation, folding, binding and so on, it looks like the next step is a direct link to the writer! Perhaps we'll reach the day when the artist sits down to his typewriter-printer, bangs away on the keys, and from the other end of the machine emerges the finished book!



HEREDITY AND ATOMS . . .



By JOHN WESTON



SHORTLY after the first atomic bombing of Hiroshima, grim rumors of monstrous mutations caused by the bomb, were circulating in this country and the government went out of its way to deny these. To the present time we hear very little of the consequent effects of atomic radiation on the offspring of those inhabitants of Hiroshima who survived the bombing. It is likely we will hear a good deal though in the years to come.

Numerous University investigators and scientists, among them, the men who investigated the radiation effects on the Bikini animals, are beginning to publish certain definite statements. This much has been ascertained. With plant and animal life exposed to radiation, principally gamma radiation or hard x-rays from the bomb, the genes and chromosomes have been so altered as to cause some monstrous mutations.

Exhaustive research in the laboratory on plants and animals too, has shown that without question and beyond the shadow of doubt, radiation so effects life in an inimical fashion, that man must take cognizance of this. A study of human beings who accidentally have been exposed

to radiation in the course of their work, demonstrates that the flesh is as weak. It is a definite unquestionable fact that even the slightest amounts of radiation have a deleterious effect on human beings. While radiation in moderate doses may not harm human beings, it does in some way alter their gene patterns, so that it is actually dangerous and risky for them to reproduce. Atomic experts coyly and delicately, say that victims of radiation exposure should not reproduce for at least several months after their exposure. No elaboration is made on this statement but you don't have to have the imagination of a fantasy writer to realize what they're talking about.

A dose of radiation, even a few quanta, striking the genes of a body, do irreparable damage in some subtle way as yet unknown to us. The effect however is as if a sixteen inch shell exploded amidst a pile of bricks. The bricks settle down after the explosion—but they're not the same bricks!

The only moral that can be drawn from these facts is—stay away from atomic explosions—please—if you can!



That a World Might Live

By Burt B. Lister.

It wasn't enough that they had to fight a whole world; a machine was forcing them to try to kill each other!

MANFRED DRAKE pounded the table for emphasis. "I bought you; you're damned right, I bought you! Just like I buy anything I use—man, woman, or property. And you're mine, Hayward, make no mistake about that!"

"The only mistake I made," Luke Hayward said hotly, "was in getting mixed up with you."

"And you can't unmix, either. Try it and I'll have you blacklisted from here to Timbuctoo."

The two men glared at each other across the table in Drake's office, bodies tense with rage, anger coloring their faces. Hayward was making an effort to control his anger, but with little success.

Hayward said, "All I'd have to do would be mention your name..."

Drake's smile was a grimace of sadistic pleasure. "You're forgetting our contract, my friend. That sword would hang over your head wherever you'd be."

Hayward let out his breath in a sigh. He wanted to batter that grinning face to a pulp, knowing he would get a certain satisfaction from it, and also knowing he would be doing something others had wanted des-





"Run!" Hayward shouted. But his warning cry had come too late. Already Murchison was bathed in the radiance of light streaming from an opening in the machine

perately to do. But he also knew that, no matter what the provocation, the fact would remain that Drake was little more than a midget in size, whereas he was a six-footer with the build and muscle of a pro football player. It just couldn't be done.

"You don't miss a trick," Hayward said. "I should have known better than to trust you or listen to you. It wasn't that I hadn't heard about your fancy legal tricks and your rotten conniving ways. Like with this deal I'm on."

"What was it, then—my charm that made you sign up?"

"You know what it was," Hayward replied. "Silonium, the super fission element. A whole vein of it down in this old shaft we're working. Sure, you and I split on whatever we find. But if we go ten feet further we'll lose a man for every foot we go."

"So what?" Drake snapped in annoyance. "Don't be childish. You have to take manpower-loss in consideration. Look at the Panama Canal...."

"I know all about the Canal," Hayward said. "They did everything in their power to cut down the losses. We're doing nothing!"

"Well, what do you want me to do—buy shields, and let the cat out of the bag?"

"The Ryner Counter showed a radiation persistency of ten plus. Hell! Radium has only three plus. Have you any idea what will happen to the muckers and machine men when that radiation hits them?"

"I told you men were cheap!" Drake snapped. "Two bucks an hour for the best. There's a hundred million in silonium down there."

Hayward gave it a last try: "Shields come to a small price, Drake. We only need two. Four hundred dollars and we save lives. Doesn't that mean anything to you?"

His plea fell on deaf ears.

"Sure, only four hundred dollars. And the whole world finds out what we're on the search for. Forget it, Hayward. Besides, I'm told that when the gamma rays hit, you never know it."

No one knows it, Hayward thought, because no one had ever been hit by the full potency of a silonium gamma discharge. A three plus discharge had melted the flesh from the guinea pig....

Drake went on: "Be sensible, Hayward. Your contract remains effective only to the completion of the shaft to the main ore body. Once we reach that you can tell me to go scratch. And you'd still be a full partner; I need you as much as you needed me. That's why I paid the price I did for you—a full partnership."

"And don't think I won't leave you flat the instant we reach the ore body!" Hayward promised. "So fast it'll make your head spin."

He didn't notice the quickly hidden look in Drake's eyes. The look that said Drake had something in store for him that meant no good....

JIM MURCHISON rested the air chopper against the rock wall and looked with narrowed eyes at the face of the wall before him. "I don't like it, Luke!"

Luke Hayward, who was hunkered down by the side of the dump car, studied the stocky figure and stolid face of his head machine man. Murchison was not the sort to get pessimistic unless there was real cause for it. "Why?"

"Because the last three shots brought rock down on us from the tunnel roof. I'm blowing sixty yards of ore every time I blast. Something's going to give."

"Vibration caused the falls," Hayward said in reassurance. "There's a half mile of solid rock between us and

the flooded part."

But Murchison wasn't assured. "According to the plan we have. What are the facts, Luke?"

Hayward understood what the other was driving at. They were digging straight into the side of the hill to get to the vein of silonium because the original shaft, which had been sunk from the top of the hill, had been flooded. Hidden springs continued to flood the shaft and foiled every effort to pump the waters out.

"They're the only plans we have, Jim," Hayward said. "The Happy Chance Mine is one of the oldest in Arizona. You know that. The Franciscan Fathers worked it in the early Seventeenth Century, though they were only interested in the silver. Of course the real value is in the copper..."

Murchison made a snorting sound. "My aunt's bustle! Copper! You oughta know better than try to fool an old ore man like me, Luke. What's more, Drake's in on this deal. The war's over and copper's no longer a strategic mineral. He wouldn't monkey with copper."

Hayward rose to his full length and joined the other against the wall. Suddenly he wanted to tell Murchison the whole truth. "Maybe you should know, Jim," he said. "You're right about it not being copper. It's silonium!"

"Silonium!"

"Yep! And from the readings on my Rynor counter, a vein of it. There are only two known deposits of the stuff—one in Alaska, the other in Mexico."

"How did you discover it?"

"That isn't the important thing, Jim," Hayward said. "The little man's got something at the back of his mind about this and knowing him, whatever it is won't do anyone good but himself. He's power-mad, Jim."

Murchison cocked his head to one side. "Sounds like the electric dump truck is coming. Too early for the muckers. Besides, they wouldn't use the power truck: Drake, maybe?"

"Probably. He knows we don't have far to go."

Hayward was right....

DRAKE WAS dressed in tailored breeches and boots and the shirt he wore was obviously of expensive material. He removed the miners' helmet and wiped his brow with a fine square of linen.

"You ready to shoot, Murchison?" he asked.

"Soon as my men get back," the machine man replied.

"Never mind them. I understand we don't have far to go, right?"

"I don't know."

"I didn't hire you for what you *didn't* know. How far to go?"

Murchison gave the other his back and moved down the tunnel. "Ask Hayward," he threw over his shoulder.

"Well..." Drake turned to the engineer.

"Why don't you be nice for a change?" Hayward asked in disgust. "Must you always throw that chip on your shoulder into everyone's face?"

"It's one way of getting work done. By the way there's water seepage back in the tunnel about a hundred yards."

"I know. Vibration probably loosened some of the loose shale on the roof."

"Better have some of the muckers brace that."

"Since when have you taken over the engineering end of this?" Hayward asked. "You take care of your end and I'll take care of mine."

Drake shrugged. "Just didn't want you to get wet," he said. "What do we do now, just stand around?"

"Jim'll be back in a second. He's got the dynitro planted in the holes. He just went in to set up the fuses."

"Good! Hot as hell in here. Is it always this hot?"

Hayward smiled. "Yeah. Those nice clothes won't look so laundered by the time you get out."

Drake looked at the stained and worn field clothes Hayward wore. "H'mm! Guess I should have worn something like you have on.... What—what's that?"

Hayward, too, had heard the shout. He didn't wait but set off at a run toward the spot from where Murchison had called. The machine man's voice had an odd note of terror behind its urgency. He barely stopped in time. Murchison was backing along the tunnel in slow movement. The man was bent forward slightly and his hands were extended before him as though he were fending something off.

"Jim! What's wrong?" Hayward grabbed Murchison's arms.

"Something came out of the ground," Murchison whispered. "Like the rounded end of a rocket. Luke! It must have been ten feet in diameter."

"What's that?" Drake demanded. He was breathing heavily. He shoved Hayward aside and pulled Murchison around to face him. "Are you nuts, Murchison?"

Murchison wrenched his arm free and shoved the smaller man against the wall. "Damn you! Don't tell me I'm crazy. I saw it, I tell you!"

Hayward rushed into the breach. "Whatever you saw, Jim, is still there. Let's have a look."

"He must be drunk, Luke," Drake slid away from the wall. He brushed at the dust on his clothes while his eyes raked the stocky man with hatred. "We didn't hear anything."

"We'll know in a minute," Hayward

said. He took the lead. The other two followed in silence.

THE ONLY sound was the hoarse wheezing of Drake's terrified breathing. The entire tunnel was blocked by the strange shape. Murchison had described it well. It looked like nothing more than an immense rocket head. As they neared it, however, they noticed a difference. A regular pattern of close-set vanes protruded all around the head.

"What the hell is it?" Drake's confidence returned when he saw that the strange metal thing was immobile.

"That's not the important question," Hayward said. He tapped the metal and skinned his knuckles. Words came over the edge of his knuckles as he sucked at them: "Where did this thing come from? That's what I want to know."

"Look!" Murchison pointed with a stubby finger. "Dirt on the edges of the vanes. Why, this thing is an earth borer."

"I'll buy that," Hayward said. "Those vanes dig the earth out and spill it to one side, which means the whole head revolves. Fine! Does that answer my question?"

Drake's sullenness returned, and with it, his attitude of authority. "Suppose we stop wasting our time. Murchison, how about blowing this thing out of our way?"

Suddenly thunder filled the air, but as the sound of it died, words were to be distinguished...

"...Who are you... Who are you?..."

They had fallen back before the terrible sound. Now, as if in common protection, they huddled together.

And again the metallic voice, "Who are you?"

"There's someone in that thing," Hayward whispered. "Walk backward slowly. Easy now..."

"Stop!" the hidden voice called.

"Not me," Drake yelled.

He turned to run and Murchison followed his lead. Only Hayward held his ground. And from a hidden aperture a beam of blue light sped to envelope the three men in, in its paralyzing grip. They could not move the smallest muscle but they could see and hear.

Then the light disappeared but their paralysis remained.

AN OPENING spread in the dull metallic hull until it was large enough for several men to pass through abreast. Two figures showed against the dark background of the interior, both men. Hayward saw their lips move but they were either too far from him or they were whispering, for no word of what was said came to his ears. Then the men stepped out into the tunnel and walked slowly over to the frozen men.

They were of about the same height but one was fairly young, the other obviously old. They wore close-fitting breeches and shirts and their feet were encased in high sandals. Their heads were bare.

Now they were close enough for the three who were paralyzed by the strange blue ray to hear their voices.

"Best to bring them back with us, Raynor," the young one said.

The older one narrowed his eyes in speculation. "Yes. We can't leave them here, unless we do it permanently."

The young one shook his head. "We'd gain nothing, then. What is more we could get information from these. They have the look of intelligence. I think Mydor would want to question them."

"Very well," Raynor said. He took a pencil-thin tube from a sheath attached to his belt, and pressed a tiny switch on the barrel. A spot of orange light touched each of the paralyzed men.

And each fell into his own world of dark unconsciousness....

THE RHYTHMIC beat of hidden engines broke the rim of the dark world Hayward was in. He stirred and opened his eyes and sat erect. He was between Murchison and Drake. Both men were still out. Hayward took in the strange room they were in as he shook his comrades until he felt them stir under his fingers.

"Wha-what happened?" Drake quavered. "Where are we?"

"Inside that rocket-like thing, probably," Hayward said wryly. "Take it easy, Drake. They'll let us know what this is all about, and in their own good time. This we do know. We're going to visit someone called Mydor. And they have the power to kill us."

Murchison suddenly stood and turned a glowering look to the room. "We didn't have a chance. But maybe the next time we will."

"I don't know," Hayward said. "That little tube packed dynamite. I wonder if they can regulate it for power?"

"We can," a hidden voice said. "Until it kills. Please make yourselves comfortable. Food will be served you soon and it won't be long until we reach the air lock at Letta. Then we will talk."

"Let's talk now," Hayward spoke to the spot from where the voice seemed to issue from the wall. "I'd like to ask you people a few questions."

"Later. There are questions we would like answered also."

They had awakened to darkness, but as the voice died away light blossomed from a hidden source. They were in a prison without bars, a room without windows or doors, yet a room which was airy and light. Metal furniture was fixed to the metal walls but the upholstery was soft and com-

fortable. And presently the food appeared on three trays which sped from a wall opening which closed as quickly as it had opened.

There was a meat like roast beef, vegetables the likes of which they'd never before tasted and a cup of something that was sweet and cool. Hayward set to eating immediately, and Murchison followed with a philosophical shrug, but Drake waited until the others were done before he tasted his food.

"You've got a suspicious soul, Drake, but it should be obvious even to you if they wanted us dead they could have easily done so. Go on, eat your food. Unless you're waiting for us to fall dead."

"Sure." Murchison took his lips from the rim of the cup. "He's only waiting to see if it affects us before he tries it."

"Now wait a minute," Drake said hastily. "What the devil! We're all in this together. No use getting angry and imagining things."

Always the clever one, Hayward thought. Always looking for the ace in the hole. Even words can buy men. That's how he bought me—with words.

"Y'know," Murchison broke in on his thoughts, "I'm just a guy who works an air chopper—an ore man. But you, Hayward, you're a guy with brains and education. What does this figure for you?"

Even Drake waited with held breath for Hayward's words.

"I don't know the whole answer, but I'll try a guess. First, this thing we're in—ship or whatever you want to call it—came from below. But from where below? Far as we know there's a thousand miles of solid rock below that tunnel. Then again, the hidden voice spoke of an air lock at a place called Letta. Air locks are usually pressure chambers. My guess

is that we're going to a land which lies somewhere deep below the surface of the Earth. Right, hidden voice?"

"Ri—" the voice began, and stopped abruptly.

Hayward winked broadly at Murchison. "Guess from here on in until we arrive, we talk of things like baseball or boxing...."

IT MIGHT have been an hour, a day, a week that went by before the hidden engines stopped their purring. But suddenly while they were sitting, each wrapped in his own thoughts, a whole section of the wall slid into another section and a half dozen men were confronting them. At their head was the young one who had helped to capture them.

He said, "If nothing is attempted on your part, nothing will happen. Do I make myself clear?"

"Perfectly!" Hayward took the lead. "Besides, I, for one, am too curious about all this to miss all the fun by having you knock me out with one of those tubes you carry."

The youngster smiled. He had nice teeth and the smile lightened the oddly mature look of his face. "Good! A sensible viewpoint. Mydor will like that." And as an afterthought, "...And you..."

"Thanks." Hayward walked beside the other as if it were the most natural thing in the world. "You speak excellent English. American in accent, I think. Am I right?"

"Yes."

Hayward noticed they were pacing down by a winding ramp. And shortly after, they were facing a closed door. By the attitude of their guards Hayward guessed they were waiting a signal, so he continued with what he had been talking about.

"Where did you learn the language?"

"From a recording disk made in one of our exploratory outer surface ships. We all speak English."

A light splashed a band of green over the top edge of the door.

Immediately Hayward's companion opened the door. He stood to one side and issued orders: "The three of you take the single bench to the right. Breathe through your mouths until you see the light above this door flash red. That will be the signal the pressure is normal. If you attempt to breathe through your noses you may find the pressure will puncture the ear drums. Take your places now."

Hayward and his companions followed the other's orders to the letter. It was not long before the signal flashed red. The youngster arose from where he had been sitting at the opposite door to the chamber and nodded for his squad to form.

As they went forward one of the guards brushed against him by accident. The smile flashed suddenly on the youngster's lips. And just as swiftly did his hand move to his belt where the tube lay encased by its sheath. Once more the three saw the orange flame come from the tip of the tube, only now a white beam of light followed it, and small though the thread of light was, it was so brilliant it dazzled the eyes.

When vision returned to the three captives it was to look with horror at a charred and twisted cinder on the metal floor. Hayward breathed with difficulty and knew he was going to be sick in a second unless he could control himself. He turned his gaze upward to meet the smiling eyes of the young man.

"Why did you do that?" he asked in a voice barely above a whisper. "You killed him in cold blood!"

"A natural function," the youngster said. "You *are* strange people. Does it make any difference when

slaves die?"

He opened the door and the squad came to attention. Three men were waiting them in the shallow room. One of the three was the one called Raynor; the second was another man of about Raynor's age, and the third was somewhat younger, though not so young as their guide. From the deferential manner of the two older men, Hayward guessed that this one was Mydor.

Mydor had the look of a leader of men. Quite tall and slender, his face had the cold look of austerity, the lines of complete self-absorption, and an assurance that was almost insulting. This man would brook no interference, would not be swayed from the dictates of his own judgment.

Hayward labeled him a megalomaniac on the instant.

"My Lord." The youngster had snapped to instant salute at sight of the three. "The prisoners, Sire."

MYDOR STEPPED forward and passed slowly back and forth in front of the three. His lower lip folded itself over the thin flesh of the upper.

"Two laborers and a man of the upper classes. You! Who are you? What is your rank?"

Drake, to whom Mydor had addressed his questions, stiffened for an instant, then relaxed. His voice was unctious in reply: "My name is Manfred Drake and I am the employer of these two. I am a financier."

"A strange word. Is your attire common to your rank?"

Drake smiled. "No, Sire," the word came easily. "These are the clothes I wore for comfort in the tunnel of the mine."

Mydor turned to his companions. He shook his head. "I don't know whether or not it was a waste of time. This midget and his slaves cannot

be representative of what lies on the next level. I'm sure. The exploratory discs brought back too many evidences of a superior race. These are obviously inferior. Get rid of them."

There was not an instant to be lost, Hayward realized. Already the arm of the youngster was moving toward the tube in his belt. "If I may say something..." Hayward said swiftly.

Mydor turned a questioning look. Then Raynor whispered something in Mydor's ear, and the other nodded. "Make it short, surface-man."

"The appearance of inferiority is deceptive. Do not be misled, Mydor."

The cold face indicated interest. But only for a second. "I see. Well, perhaps I will have time...later. Place them under guard, Sopar, and see to it they do not escape."

"It was a lucky thing for you," Sopar said, as they marched the length of the room, "that Raynor spoke in your behalf. Inferiors cannot address superior beings in Atlantis."

"At-lantis...?" Hayward hesitated over the word.

"Yes. I think Raynor will visit with you later. Now we must place you in safekeeping."

Things moved with kaleidoscope effect and speed. There was a quick glimpse of a large plaza, tall buildings gleaming in the sun, men and women in strange dress and hundreds of uniformed men standing guard. Then Hayward and the others were hustled into a tubular vehicle which was standing before the door of the low, long building from which they were led, and once more they were off into mystery.

This time there was no questioning the kind of place they were in. As Murchison put it, "Guess walls and bars *do* make a prison."

Nor were they the only imprisoned.

There was a noticeable difference

however. The walls were the ones enclosing the prison compound. The prison itself was a series of barred cages set one against another, each filled almost to bursting with men and women alike. The instant they came into the compound the stench of unwashed bodies greeted them. The odor was so bad Drake instantly became sick.

It was then they discovered the steel beneath the velvet gloves.

Sopar carried nothing but the tube in his belt. But the warders carried thonged whips. As Drake bent over in nausea two of the warders began to lash at him with their whips. Sopar stood to one side and watched, bright-eyed and smiling.

Hayward had a real hatred of Drake, had always thought of him as the most insufferable human he had ever known. But this wanton beating of him was too much. In a flash he was on the nearest guard and before the man could turn, had wrenched the whip from his hand.

As Hayward pulled the whip free he saw Sopar reach for the tube. Sopar's hand never made it. The whip lashed out and the end wrapped itself around his hand. Before the Atlantean could resist, Hayward had dragged him close. Sopar tried to bring the tube up but he seemed like a child in Hayward's grip.

This fact stayed in the background of Hayward's consciousness for the moment. He tore the tube from Sopar's fingers. A wild scream of exultation rose on the air as Hayward threw Sopar to one side and leaped at the guard still beating Drake. Murchison, who had seemed to be stunned by the quick developments, came to Drake's aid also. In an instant there was a wild melee.

"Do not kill them," Sopar shouted as he staggered to his feet. "Mydor wants them alive."

Hayward seemed like a man gone mad. He lashed at the warders with hammering fists and each time a man was struck he fell like a poled ox. Nor were Murchison's blows less effective. But though the two of them fought with the fury of ten, the odds were altogether against them. Sheer numbers finally brought them to the ground. And even there the fight was carried on.

Hayward's mouth and nose were filled with blood. A lashing thong had ripped his cheek from jawbone to ear and blood ran down the nose from a cut over one eye. Finally enough warders came into the fight to make it impossible for the two men even to move.

While Hayward was held helpless in the grip of several men, Sopar came up from behind and struck Hayward a terrible blow at the back of the head with the butt end of a whip. A second later Murchison was stretched out beside his friend, and just as unconscious.

And all through the battle Drake lay on the ground and trembled in terror.

"... NOW! Stand back a bit more.

That's better. They're coming out of it."

Hayward opened his eyes and small as the movement was it brought a grunt of pain to his lips. Opening his eyes had also reopened the gash over the eyebrow. He wiped the flow of blood away and brought his gaze to focus on the face bent above his.

He could not guess her age, nor was he interested. He knew only that she was the most beautiful woman he had ever seen. Her lips parted slightly to show perfect teeth and he heard the soft catch of her breath. Then she let her breath out and her voice framed an "Oh."

"I'm all right." He managed a

smile. "How are my friends?"

"None the worse for wear. Can you manage to stand?"

He pushed himself erect, and was immediately surrounded by a mob of prisoners. Murchison elbowed his way to his side. Now that he was erect, Hayward saw that the girl was quite tall, only an inch or so under his own height, and she carried herself gracefully under the grey sacking she wore. He noticed the sacking seemed to be the common uniform for men and women alike.

Once more the girl spoke, and Hayward noticed how immediate was the silence which followed her words, as if she was used to being heard, as if she was used to command. "Who are you and your friends? We have never seen men of your kind before. Is there an undiscovered land on Atlantis we know nothing of?"

"A land *above* Atlantis! We are from the surface of the Earth."

She shook her head in perplexity. "I don't understand. But that isn't important, I suppose. How did Mydor get hold of you? The 'Smiling People' do not like taking prisoners, unless, of course, you have some kind of value for him."

"Before I go into that," Hayward said, "mind if I ask a couple of questions? Who are you, and how—or rather why—are all of you in prison, especially since you say Mydor does not like to take prisoners?"

"We are here to provide sport for Mydor's people," the girl said. "I am Marna, and these here with me are a few of my subjects. The other cages are filled with them, also. It seems that Mydor is going to use us for purposes of morale in a war he is planning." She stopped on seeing the bewilderment on his face. "I suppose none of this makes sense to you," she went on. Her lovely lips twisted in a wry expression. "Sometimes it

doesn't make sense to me. But Mydor is filled with a lust for power. We knew peace for thousands of years, then he came on the scene and peace died in a bloody bath. Mydor wants to fulfill an old prophecy."

"Prophecy?"

"The return of the peoples of Atlantis to their rightful place on the surface."

"Luke. Luke..."

Hayward looked away from the girl. Murchison was standing close by his side.

"I been listening to this talk but it's over my head. What's the girl trying to say?"

"It seems we landed in the middle of a war. This is Marna, the ruler of..." Hayward stopped in embarrassment.

The girl smiled. "I am still their Queen," she said. "They will follow me to the death." She turned and Hayward and his companion turned with her. The two men saw the faces of the men and women who crowded the cage light up with hope and courage as their eyes met those of the tall, proud girl.

One of the prisoners shouted something in a strange tongue. The cry was echoed by those in every cage in the compound until warders came running from all sides and stood tensely about, whips held ready. Hayward noticed some carried long tubes like the one he had taken from Sopar.

For a long moment it seemed as if Death was about to fill its gorge. Then the girl said something in a low voice to a man standing near to her. He shouted something which instantly stilled the screaming voices.

"We have no chance by fighting them here," the girl said. "Our only chance may come when they release us."

"Looks like we're getting company," Murchison said, nudging Hayward.

A PAIR OF gates had swung wide and a torpedo-shaped affair rolled into the compound. Several dozen men swarmed from its hull and came to attention as two others followed them into the open. One of the two was Raynor; the other, Sopar.

Raynor came directly to the cage which held Hayward and the others. He stood for a couple of seconds in silence, his face thoughtful, his eyes masked.

"Let the three from the surface come forward."

Raynor's voice brought remembrance to Hayward. Drake! Where was he? Murchison found him in a far corner, sullen and frightened. Hayward saw Murchison's head shake and his hands move, as if to accent what he was saying. Then Murchison stopped talking and grabbed Drake by an arm and dragged him forward.

"He's scared to death," Murchison said. "Look at him."

"They'll kill us." Drake's voice quivered in fear. "They'll kill us and laugh while they're doing it."

"I don't think so," Hayward said. "Certainly not if we don't give them reason to. Buck up, Drake. Try acting a man."

"The gate is open," Raynor said.

What kind of prison is it? Hayward wondered as he shoved his way to the gate and pulled it inward. His eyes moved upward and he realized why they did not fear any attempt at escape. Manning saw what looked like a pair of searchlights atop the wall, and eight or ten of the guards. The searchlights were directed toward the cages. Hayward had an idea that a blue beam would spray them should there be any attempt at escape.

"Mydor awaits you," Raynor said shortly as the guards closed in on Hayward and his two companions. "Come..."

THEY HAD been ushered into Mydor's personal chamber of the palace. Sopar had disappeared shortly after they left the car, but Raynor remained. Now he stood beside Mydor who was seated on what appeared to be a gold throne.

Raynor looked at Mydor who gave a short nod, and Raynor addressed them:

"His Majesty, King Mydor, Monarch of all Atlantis, avowed conqueror of the surface world from which we were exiled, has granted an audience to you from the surface world, and an opportunity to aid in the conquest of that world from which you come.

"Within a short time armies and armaments will be ready for their greatest and most glorious action. Nothing will avail against them. For so it was said in the prophecy, and so shall it be."

Hayward felt all this was the preamble to the important things to follow. It was a build-up which was proscribed.

"...Because of the vastness of the undertaking, certain measures must be taken into consideration. Our exploratory discs have shown and recorded the fact that atomic weapons are in use on the surface. We, too, have a knowledge of those weapons. We have found that there is now an element, called silonium by the surface peoples, which can most readily be put to destructive use. It is our desire to mine and bring this element to Atlantis. Our craft of exploration, which you discovered, was searching for the vein which our instruments showed lay somewhere in the vicinity.

"The great wisdom of our King made easily understandable your presence in the tunnel. You, also, were searching for the vein. Only you knew its exact whereabouts."

Hayward let nothing of what was in his mind show in his expression.

"What do you want of us? To give you the exact location?"

"Precisely!" Raynor said.

"Not a chance," Hayward said softly.

"That's telling them!" Murchison growled.

Raynor smiled. Hayward felt a quiver of cold run through him. He had learned what their smile meant.

"We shall discover it eventually," Raynor said softly. "With or without your help. It will only expedite matters, with your help."

"I'm ready to help," Drake said. He stepped forward until he was out of Hayward's reach. "This man is my engineer. He knows exactly where the vein is."

But Drake was mistaken about being out of Hayward's reach. Hayward took a couple of quick steps and did what he had always wanted to do. Drake was lifted off his feet by the blow and fell in a crumpled heap almost at Mydor's feet.

Instantly the guards who were in the room converged on Hayward and Murchison with drawn tubes. But Mydor raised a plam in a languid gesture. The guards fell back.

"You see, Raynor?" he said. "I said you were but wasting time with these. I should never have let you talk me into granting an audience. Inferior beings. Obviously. We need only send up several of the rocket machines and one of them will strike the right place. How much more simple it will be that way. Besides, these will furnish the people with sport. The first of the hordes of surface prisoners."

RAYNOR bit his lip. It was obvious he was worried about something. "Great Lord," he said softly. "How right you are." He turned to face the two. "Decide now. Death or freedom."

Hayward's mind worked swiftly

and desperately. "Would you answer a single question, Raynor?"

"Ask it."

"If we hesitate it's because we have been brought into the strangest adventure of our lives. A planet within a planet, a world of people which history said disappeared thousands of years ago. But here you are and have been through the ages. Now we are being asked to make a decision that is the hardest we have ever known. We are being asked to destroy our planet."

"Not quite," Raynor said. His voice took on an odd note of urgency. "We will let the people of the surface world destroy themselves. Our plans are simple. We will manufacture a number of silonium atom bombs, send up the discs and have the bombs dropped at various places. The nations of the surface world are ready to go to war on an instant's notice. Each will think the other is attacking. When the carnage is over, when the nations are helpless, we will attack."

Hayward tried to swallow the cotton which had formed in his craw. What sort of devilish beings were these? He wet his lips, felt an anger that was like seething metal take hold of him. But before he could say anything, Raynor spoke again, this time to Mydor.

"Let me speak to them privately," he said. "A few moments alone with them and I think I can convince them of the wise course to follow."

Mydor nodded. "Very well, Raynor. Not too long, though. I wish to discuss the games for tomorrow. Marna and her followers should make fine entertainment for the people."

RAYNOR ushered them into a small ante-room and closed the door. Drake, who had been helped to his feet and brought with them, vented his hatred with looks of promised ven-

geance. But the eyes and attention of the others were on Raynor, who had suddenly placed a finger to his lips in a signal for silence.

A moment went by. Then Raynor came close to them.

"Mydor is insane," were the first words he said. "Yes. We must stop him. He will commit our world and yours to destruction. I surprise you?"

"Brother, and how," Hayward said, matching the other's low tones.

"It would be a quick death for me if I acted otherwise," Raynor went on. "Somehow you must be placed on the earth-machine so that you can get back to your people and warn them. You must agree to Mydor's demands."

"You're against him, then?" Hayward asked.

"The only one in a high place who is. The others are like him—utterly mad. No wonder we are called the 'Smiling People' by others, and with hate in their voices. We kill with a smile on our lips. Kill and torture. Let me think a moment."

He placed the tips of his fingers to his temples and moved back and forth about the room for several seconds. Suddenly his face lifted. A light of elation showed in his eyes. "I think I have it! This element silonium is absolutely necessary. The others from which a bomb can be made are not in our world, and in yours would be too hard to get. Without you we would face great delay, and perhaps complete frustration because we are a small world."

"And a strange one," Hayward added. "A world with a sun and a heaven like ours."

"And a man who thinks he is a god. Will you trust in me?"

Hayward looked at Murchison, who nodded. But Drake refused to meet Hayward's eyes. Hayward smiled. No need to worry about Drake, he

thought. He's too scared to be of hindrance. Besides, all he wants to do is get back.

"Yes," Hayward said.

"Good. Then follow my lead," Raynor said.

"**M**Y LORD!" Raynor bowed low.

"Yes?" Mydor said languidly from his throne.

"They have seen the path of your wisdom and have agreed to help."

"Good. I leave them in your hands. Do as you wish, but do it swiftly."

Raynor bowed again. "I have told them they are free and will have them brought to my home."

"Very well. Sopar has the ships in readiness?"

"To leave at a moment's notice, Sire."

"Then we will do so immediately following the games on the morrow. Go, Raynor, and give them their instructions."

Raynor's house was a crystal one-storied affair on the crown of a low hill overlooking the city of Letta. Night had closed its dark veil over the city. A full moon hung low against a backdrop of ink. There were no stars.

Hayward, Murchison and Drake, refreshed by baths, lolled on a wide circular divan. They had just finished dining with Raynor. The old man had refused to answer any of their questions until now.

"Your lips are trembling with words," Raynor said. "Let them spill out."

"Explain all this." Hayward's hand took in everything in an outflung gesture. "There is a moon, and we have seen the sun, and we have also seen that the surface planes are as we know them. Yet we are inside the planet Earth. I don't understand."

"You mean we should be as the

inside of a bowl?" Raynor asked.

"Well, I don't know whether I can make it clear or not. Time and space are one and the same. That is the truth you must acknowledge. One cannot exist without the other. Here, time and space are a continuum of the same existence. The space you see above you is the same which exists above the upper surface. And above that space man will find another world. Worlds which can be likened to great circular bands. You have been misled. There is no great thickness to your planet, just as there is none to ours. I hope I have made myself clear?"

"Not too well. How do you explain the sun and moon? They seem as large and distant as ours," Hayward said.

"They are."

Whether it was the truth or not, Hayward thought, no one would believe him should he somehow manage to get back to the Earth. Suddenly a heart-shaped face appeared in the mirror of his mind. Marna! He felt his pulses stir at her memory.

"What kind of game is going to be played tomorrow?" he asked.

Tired lines made wrinkles in the drawn face of the old man. "Marna and her people will be put to death, after they have been tortured."

"Why?"

Raynor sighed. "For no reason other than to satisfy Mydor's innate cruelty. Once there were three peaceful cities. Now there is only Letta; the others were destroyed by Mydor, and their people used as slaves or placed under arms, or used in the great games. Marna was the Queen of Hegga until he attacked her city. Now she is awaiting her death and praying it will come quickly."

"And nothing can be done to save her?" Hayward demanded.

"I can't imagine what. They are

unarmed. If ~~only~~ the people had arms...."

"Raynor, how do the tubes work? Where do you get the ammunition for them?"

"What difference does that make to you? You could do nothing to— Or am I saying that which I have been led to say? What have you in mind?"

"You must have allies, men who think as you do." Hayward pointed his finger at the old man. "There must be more like you. If we could rally these, tonight, and release the prisoners, give them arms, and escape from Letta...."

Raynor clapped his hands explosively. "You have given me the key. A single power plant in the heart of the city supplies the energy for the tubes and ray machines. If we can put that plant out of commission the tubes and machines will be useless. Then it would be man against man, with hand weapons." He rose in his excitement and strode about. "If only we have time enough tonight...."

"What do you have to do?" Hayward asked.

"Get to these men I trust. They are scattered. Let me think a moment. The night is still young. We will go ourselves. Come."

EVEN DRAKE showed signs of the excitement they all felt. The wide streets were filled with traffic, afoot and in the torpedo-shaped cars. But all made way for Raynor's car with its insignia of rank emblazoned on the head. With them were four of Raynor's personal guards.

Their destination was the power house.

As Raynor explained: "They will let me in. I will tell the one in charge that I am showing you the wonders of the plant. Once we are in, my men

will concentrate their fire on the engine which creates the energy we have to destroy. It will take but a second. From then on we will have to depend on the strength of our arms and the swiftness of our feet. I sent out trusted messengers to bring the news of what we were doing to certain men, and they in turn will follow a plan we have long had should an opportunity arise for its use.

"That opportunity is now at hand."

The old man was all right, Hayward decided, despite his windiness. He felt the weight of the sword Raynor had provided, against the flesh of his thigh. It was an unaccustomed weight but felt better than anything he had ever known before.

Suddenly his head lifted. The car had stopped.

"We are here," Raynor said. "And may luck follow before us."

A cordon of guards were drawn up before the squat building housing the power plant. One who was the leader came forward with a belligerent strut, a strut which changed to stiff attention at sight of Raynor.

"Acquaint the one in charge of my visit," Raynor commanded.

The man saluted, turned on his heel and disappeared into the building. He was back shortly, showing the way to Raynor and his group.

A stocky man in grey coveralls was waiting them within the entrance. He waved the leader of the guards away, saying, "There is no need for you, Captain. The King's Councilor needs no supervision. Ah. Are these the ones from the surface?"

"You know...?" Raynor asked.

"Of course. And also that they have cast their lot with us."

"If I may say something?" Hayward spoke on impulse.

"Of course," Raynor said.

"I am an engineer and I marvel at the wonder of your tube weapons. It

would be a privilege to see the machine which energizes them."

"Of course. This way."

The entire group followed the lead of the squat man and presently they were on a balcony looking down at a machine resembling a gigantic dynamo.

"The most wonderful mechanism in the world. The invasion would be impossible without it. By tomorrow night enough energy will be provided to the ray tubes and larger pieces to last a year. Our mighty King will—"

The squat man's voice died in a scream of terror as one of Raynor's guards lifted him and hurled him over the balcony.

"Quickly," Raynor said. "Now!"

Four beams of white light sped from the small tubes and struck the dull metal of the machine. Orange glowed where it was struck and presently the stench of molten metal came to their nostrils. And suddenly the rays went out.

"The power's gone," Murchison shouted. "Now we can strike!"

SWIFTLY Hayward led the way to the outside. The guards showed only faint surprise at the sudden exit. Too late did they realize something was wrong. By that time the group had made good its escape.

"The alarm will go out swiftly now," Raynor said. "But we have the advantage. We know where we are bound; Mydor is in the dark."

"How long before we reach the prison walls?" Hayward wanted to know.

"Not too long, at our speed. That is, if we are not stopped?"

"To hell with that!" Hayward said. "I've noticed this thing runs like one of our autos."

The man at the wheel moved over

and Hayward took his place. "Hang onto your hats," Hayward said. "We're going places in a hurry."

"This road leads straight to the prison." Raynor leaned over Hayward. "It will be a little while until the alarm is out, enough time for us to get there."

"Luke!" Murchison called from the back of the car. His voice had a pleased note to it. "We've mislaid Drake."

Hayward spun the wheel about in a frantic move as he barely missed another vehicle at an intersection. "What do you mean?"

"Guess he was too slow," Murchison said. "He ain't here."

"Then we'll have to go back for him," Hayward said grimly.

"Why? He's no damned good, and we'd all be better off if he stayed down here."

"Maybe." Hayward spun the wheel and the car almost stood on end as it went into a U turn. "But he came with us, and he's going back with us." He felt a hand on his shoulder and looked up to see Raynor bent above him.

Raynor's eyes were thoughtful. "Your friend could easily have made it to the car. I don't think he wanted to."

Hayward knew a decision had to be reached, and quickly. If Drake had been left behind in the excitement of the get-away, then surely they had to go back for him. On the other hand Drake might have had other ideas. Hayward could feel the electric air as the others waited tensely for his decision.

But it was Raynor who forced Hayward's hand. "We would be too late, anyway. The guards would have taken him."

"I suppose," Hayward said. He whipped the car about again.

PRESENTLY they were in the open and in a short time the low prison walls loomed before them. Hayward stopped the car at Raynor's direction at the center gate.

A captain of the guards opened the gates at sight of the visitor. Hayward and Murchison acted as though they were prisoners; and to add to the effect Raynor's personal bodyguard drew their tube guns and held them in readiness.

"I am returning the prisoners," Raynor said.

The captain turned to call warders and Raynor put out his hand quickly. "My men will conduct the prisoners, Captain. If you don't mind?"

"Not at all, if it is your desire."

"Thank you. Come along, then."

In his desire to walk at Raynor's side, the captain stepped between the bodyguard and prisoners and accidentally bumped against Murchison. A startled expression dawned in the man's eyes. "The prisoner! He's armed!"

Those were his last words. Another second and the alarm would be raised. With a gesture surprisingly swift for an old man Raynor whipped out the short sword concealed under his shirt and ran it through the captain.

The man died without a sound.

It was the signal for all of them to draw their weapons.

"To Marna's cage!" Hayward shouted. Without waiting to see what the others would do, he set off at a run for the cage shouting as he did: "Get out! You're free! Get out of the cages!"

His words aroused not only the prisoners but also the guards. Men boiled from their quarters at the far end of the compound and their figures showed on the wall as they ran to the huge ray machines. But when they turned them on, nothing happened. Just as when those on the

ground attempted to blast the escaping prisoners, nothing happened.

In the meantime Hayward and the others had reached the cage where Marna was imprisoned. He made his voice heard above the voices of the excited prisoners.

"Get their weapons! Get their weapons!"

"You came back for me!" Marna's voice was warm and low.

He turned to see the woman he had come for standing beside him. Her beauty was a spark that set his heart aflame. He had never imagined that when love would come it would come so quickly, so completely without question. A Queen! And she loved him. It was to be seen in her eyes, felt on her lips as she pressed them against his.

"**M**ARNA!" Raynor's face was contorted. "Can you get your men organized? The alarm is out and Mydor will be here with an army."

It was amazing how quickly her subjects rallied around her. Individual fights raged about the compound but now it was apparent that some sort of order was being formed by the guards. Small groups of them under the leadership of one man or another, pitted themselves against many of the escaping prisoners and hacked them to pieces before a defense could be organized.

"We've got to have weapons," Marna said. "Attack the guards."

IT WAS AN order. Hayward was shocked by it because it meant a command to suicide for many; having no weapons Marna's followers had to take arms from the guards by sheer force of numbers. Then he saw the sense of it. Men had to be sacrificed to gain the end Marna was after: control of the prison compound and the weapons.

As if it was the most natural thing in the world, he took command of their immediate group. Using Raynor, Murchison, the four bodyguards and himself as a nucleus, he hacked his way to the gate through a horde of guards. Steel ripped his clothing to shreds, razor-sharp sword edges nicked him time and again and once a wild swing of one of the guards almost took his head from his shoulders. But luck stayed with him. He ducked in time and his own blade swung up and out, to stream red with blood as it went completely through the man. What Hayward had noticed when he took the tube away from Sopar was evident now. His own strength was superhuman, or the Atlanteans were much weaker than Earthmen.

By the time they reached the gate a large number of Marna's followers were armed. More and more came to join them until their force numbered hundreds. The guards had been forced to fight a retreating action. Suddenly the withdrawal to the gates became a riot.

"Let them go!" Hayward gave the command. "Marna, have some of your men guard the women and take them to safety. Raynor..."

The old man's arms hung heavily at his side and the face was lined with weariness. Blood dripped from a cut on his cheek, but the old eyes were ablaze with fight, and there was no question of the great spirit in that frail body.

"Yes, surface man?"

"We've got to get back to the city and carry the fight to Mydor. How do we do it?"

"You're right. And before they set up a new plan. Look!" He pointed up the long stretch of wide road leading from the city to the prison.

A long line of headlights, like

fireflies dancing in a row, were swooping down the road toward them. The same question was in each mind. Mydor?

"Quick! Along both sides of the road. Hide in the grass until we learn if they are friends. Raynor, you and Murchison take one group; I will take another. Get moving!"

THERE WAS no longer any question as to who had come. The first two out of the lead car were Mydor and Sopar. The youngster raised his sword in a signal and men streamed from the hundred vehicles.

The voice of Mydor, coldly contemptuous, was suddenly raised in command: "Take no prisoners. Neither man nor woman."

"I'm going to wipe that look from Mydor's face," Hayward whispered to Marna. "Besides, we need those cars. One thing. I don't want you in this thing."

"You can't keep me out," she said.

There were many things about her he knew nothing of. He knew only that he loved her, and felt certain his love was returned. But there was time for learning more. Was it an hour they had spent together in the same cage? A day? He knew it was a lifetime, now. And no matter how short the time, it had been long enough for him to know life held no large meaning without her. He shook his head, but smiled as he did so.

"I can't take a chance," he whispered. "You heard Mydor's words."

"We had nothing but our hands before," she said. "Now there is steel in them. I am their Queen, and I must lead them."

He swallowed hard. This was not Conpa City, Arizona, or even the earth on which that hamlet stood. This was a band of rock, a layer of a planet, a world like something in a

dream, the home of a people who had disappeared from the earth thousands of years before. He could not break the bonds of their customs by using phrases familiar to him.

He cupped his hand under her chin and lifted her face to his and kissed her hard and she brought her body close to his so that he felt the swelling breasts quivering against his flesh and knew for a wild instant the depths of passion in this strange woman. Then he pushed her gently from him and nodded once.

She had won.

He stood erect, a figure of pent-up power, his face a mask of flaming anger, his hand with the sword clenched in a fist thrust straight out before him.

THIS TIME the battle was another kind. The guards had been unorganized and in scattered units. The men Mydor had brought with him were trained to fight as a single unit and to use battlefield tactics. The surprise attack gave them no chance to form ranks. And, like the battle in the prison compound, it developed into man-against-man fights. The difference lay in the type of warrior. Marna's men were fighting.

As if it were second nature to Hayward, he saw what the end would be. Mydor's minions would win. Already squad leaders were forming their men into cells of attack and defense. The scattered fight was being directed into channels dictated by Mydor's commanders. Slowly Hayward and the rest were being driven back toward the prison gates. Those of Hayward's men who were caught on the other side of the road were chopped to bits.

Around Hayward and Marna and Raynor and Murchison, the ground was cleared. The enemy glared their hatred and respect of the tall Earth

man. Unfamiliar as the sword and its use had been to Hayward, he had created havoc with it. The phenomenal strength he had in this strange world had made him a dreaded opponent. Yet it was obvious the end was a small matter of time away.

"It's a hopeless cause," Raynor muttered.

"Not yet," Hayward made answer. "This fight, maybe; but I think we can get away." He looked about and counted some twenty men who were in their group. "If we can get to Mydor's craft..."

Once more Raynor's face lit up with renewed hope. "If we can, it will be clear sailing to the city. His insignia will let us through."

"What are we waiting for then?" Hayward asked.

His now-familiar bellow of defiance rose on the air, and sweeping the girl close to his side he charged the thin wall of warriors facing them.

The suddenness of the attack cleaved a crack in the thin line, and seconds later the fight raged about the torpedo-shaped car. Marna, too, raised her voice in a last desperate attempt to rally her dwindling forces. They responded nobly, forcing drained nerves and muscles to give their last reserve of strength in her honor.

Men fell and were trampled by others who made frantic efforts to reach the enemy, until a wall of dead lay heaped about the car. The screams of the wounded and dying rose in a horrible sound, like a hymn to Death. So close were they jammed that men died and were held erect by the press of others. There was no room for swinging, only for stab and thrust. For an instant the battle hung in the balance, and Hayward called on his reserve of power. His great figure, naked now to the waist, was like an avenging angel's, as he hammered by

the sheer power of his arm, a path to the still open door of the car.

And rising up to confront him was the figure of Sopar.

No longer was the Atlantean one of the 'Smiling People'. His face was a smear of red and his eyes gleamed in fanatic fervor. His sword flashed above his head as he took a single step forward and brought it down, at the very instant Hayward slipped in one of the pools of blood.

The blade flashed down.

Hayward tried to keep his balance, tried to bring up his own sword in protection, but too late.

Someone caught him a blow on the shoulder which knocked him aside. It was Raynor, who had plunged headlong at Hayward. It was Raynor who took the murderous blow with his own body. Sopar's face wore a grimace of hatred as he twisted the sword loose from the corpse of Raynor. The grimace was still on his face when Hayward's sword cut him in half!

LIKE PUPPETS propelled by a mad master, Hayward, Marna, Murchison and what were left of her forces piled into the elliptical craft. A wild man leaped into the driver's seat and twisted the wheel in a full turn as the engine roared, then purred into power. Seconds later they were in the clear.

Hayward turned to the others. "We've lost Raynor. What do we do now?"

A warrior crawled panting to Hayward's side. "I have been trained as pilot. There are two space craft on a field outside the city."

"Like the one that brought us to Letta?" Hayward asked.

"Better. These are larger and are more powerful and swifter. Mydor constructed them for the day of invasion. Each can hold ten thousand men!"

A laugh that bordered on hysteria rushed from Hayward's throat. To think a man could be that mad as to attempt invasion of the Earth with twenty thousand men. But the laugh died almost as quickly as it was born. He suddenly remembered what he had been told. The mysterious discs were to bring the silonium bombs to the Earth and drop them.

The discs! *Flying saucers*....

But how had they been brought to the Earth? What difference did it make now that he knew their purpose, past and future. He had to get back to the Earth and somehow warn its nations.

Hayward felt the sudden press of warm woman's flesh against his shoulder. "Marna, my dearest..."

She whispered, "I go where you go. Here life is done for me."

His bloody hand rose to caress her shoulder but fell back to the wheel. He could not defile her with its crimson touch. "You say you are a pilot," he spoke to the warrior. "But can you bring us back to the spot from where we were taken?"

There was a laugh of exultation behind the man's words. "Mydor made it simple for us. I know. I was head of Raynor's bodyguards and knew all of the mad King's plans, as well as did my dead master. The pilot control is set. It was set the instant Raynor and Sopar came back with you and your friends. There was only the wait for the proper moment. There is even a stock of provisions on board."

For the first time since the battle had been joined, Hayward heard Murchison's voice. "Food," Murchison said wistfully. "What's that? God! Even crumbs would be welcome."

"You'll have to hold out, Jim," Hayward said.

"Hold out! My aunt's bustle! There's nothing to hold out with. My

belly's saying hello to my backbone."

"Turn off the road here!" the warrior called suddenly. "It's only a short distance."

HAYWARD had never dreamed such a ship could be constructed to be made to fly. He had not known the size of the ship they had come in but had realized it was immense. But this thing before them; it was colossal!

His eyes trained to gauge size, made the craft out to be a thousand feet in length and two hundred feet through the middle. The head of it was fifty feet at the widest, and each vane was a foot long. It seemed incredible.

But even more incredible was the small number of men set to guarding it.

At sight of the royal insignia the guards snapped to attention. Too late did they discover the deception. By the time they saw it, Hayward and the others were on them. Hayward and the others were not to be denied. The guards died to a man!

"Show us what to do," Hayward ordered.

"There won't be much to show," the warrior said. "The automatic pilot is set and the course has been laid for it. Come. We get in through the belly."

Hayward and the warrior had been talking close by the ship while the others stood about waiting their decision. Suddenly one of them turned idly and what he saw made his voice rise in a shout of warning.

"I see the lights of cars coming swiftly!"

"Quickly!" The pilot waved them forward. "Inside." He reached up against the dull metal and pressed a knob which protruded and instantly an opening spread and a ladder unfolded its length to the ground.

A couple of minutes later the last of them was in the huge belly of the monster ship. Up ahead, in the vast pilot's compartment, Murchison, Marna and Hayward watched the pilot twist a dial. A humming sound was heard, which gave way to a low vibration. The pilot turned, smiled briefly, then said;

"Look below."

"Look, Luke! It's Drake!" Murchison bawled wildly. "He's with Mydor."

Murchison had seen right. The tiny figure of Manfred Drake was to be seen at Mydor's side. Suddenly there was nothing to be seen. It was as if a screen had been pulled before their eyes. The two turned questioning looks at the pilot.

"We're in flight," came the matter-of-course answer.

AS ON THEIR flight from Earth neither Murchison nor Hayward knew the passage of time. Murchison spent most of his time with the pilot. But Hayward knew only that here, in this brief moment, was his chance to know Marna. Nor was she lukewarm to the idea. But in both minds there lurked the dread thought of what the future would bring when both ships landed.

They knew the speed of both was about the same and that from what the pilot said both ships would land not too far from each other in the tunnel. This also they knew. The fight to the finish would come then, and as before it would be hand-to-hand; the ray weapons were still useless.

So Hayward and Marna learned the sweetness of love while they had the chance. While, in the darkness of outer space between the bands of planets, their ship sped on its destined course.

They were walking the narrow deck close by the pilot's compartment when Murchison dashed from it.

"Marna! Luke! We're coming in!"

They could feel the deceleration as they grouped themselves over the pilot's shoulders.

"Watch," the pilot said without taking his eyes from the dials on the board. "Very soon, now."

Directly ahead lay a broad plain. But as they came closer they saw that what had appeared to be flat land was really mountainous country. And so quickly it almost took their breaths away they were flying between two huge basalt-like needles of mountains into what must have once been a crater. Seconds later darkness enfolded them in its sable wings.

The pilot slid from his seat. "That's all," he said. "I've set the alarm to let us know when we are through."

Hayward nodded soberly. "Might as well get ourselves set for the last battle."

He counted noses as they filed past him to the hatchway. Twenty nine, including Marna. A pitiful force to throw against Mydor. But one that would fight till the breath ran out of each body.

"Listen to the old lady growl," the pilot said. He grinned. "She's got to dig a new path. The ship Raynor used was a tenth this size."

A sudden thought struck Hayward. "Are we on the same path as the one who came before?"

"I don't know," came the answer. "But not far off, I'm sure."

SUDDENLY there was silence.

"Let's go!" Hayward shouted. He had given them their instructions. Murchison and several others were to hurry Marna back along the tunnel to freedom while he and the rest fought off Mydor. Hayward knew there simply wasn't room in the tun-

nel for effective fighting. Two men could hold off hundreds.

He made a silent vow he would be one of the two until death took them, or rescue came.

The ship came to a halt with a jar which threw them all off balance. Seconds later the last of them were through the hatchway. Murchison and the girl and another raced off while Hayward waited for the other ship to come through.

The seconds that went by were eternities.

For there was horrible uncertainty of not knowing where the other ship would come through. They could all die without having a chance to strike a blow should the nose come through at the spot where they waited.

Hayward's lips twisted in a crooked grin. He thought suddenly what might happen should they come in where the vein lay. And with that thought came another. The dynitro! It was all ready to be set off. Murchison had set the charge. If the ship came through between the charge and their ship...?

There was a single wild chance to take. If it succeeded they were all saved.

"Wait here!" he yelled, and set off at a run toward the end of the tunnel.

The wires and battery were all set up. Hayward grabbed them up, whirled and whipped back toward where the others were waiting. He was racing against two things: one, he didn't know when or where the other ship would come through; and second, he and the others had to get around the nose of their ship in time.

He made it back with only seconds to spare. Just as he came to a panting halt, there was an unearthly roar, and a vast mass shot up through the floor of the tunnel. Hayward turned,

handed the battery to the pilot and yelled above the tumult:

"Quickly. Get behind our ship, roll the wires out a bit more, and push the plunger down!"

"But what of you, sir?"

"Don't worry about me. I'll hold them off."

Hayward gauged the distance and saw that there was perhaps a hundred feet from where the tunnel ended to where the nose of the second ship pointed its dull metal upward. The blast would kill every man between the two ships.

"All of you," he amended his order. "Get behind our ship with the pilot. I'll give the signal."

MYDOR WAS the first to step from the ship. Behind him came Drake. Seconds later a hundred men stood grouped about the nose of the ship. Mydor's face was devoid of expression.

"A long chase," Mydor said. "But now it is ended, and we have arrived at our goal."

"Not quite," Hayward said.

"Oh, but we have. You see, your friend Drake, here, is going to act as my emissary when our invasion has begun. He made it plain the people of your planet are stupid, and your tale will be laughed at."

"That's right, Hayward," Drake said. "You know how right I am. And something else. Our contract is ended, as of this moment."

Hayward had noticed—a surreptitious movement of the men toward him. Another moment and they would charge.

"Now!" his voice rang out. And with a simultaneous lunge, he hurled himself forward and threw the sword with all his might at Drake.

There was the sound and fury and flame of a huge explosion and the last thing Hayward saw was the body of Drake pierced through by the sword, fall to the ground.

Then all sight vanished in blackness....

"HE CAN'T die!" A soft voice sobbed. "He can't!"

Luke Hayward opened his eyes and saw the most beautiful eyes in the world looking pleadingly into his own.

"Die?" he repeated painfully. "Darling, I've just started to live!" He turned his glance away from hers and saw Murchison kneeling beside the girl. He was grinning broadly, and Hayward knew the adventure was ended.

Except for love, and who feared that?

THE END

RADAR MATING CALL!



By CHARLES RECOUR



TWO SCIENTISTS of the Interchemical Corporation whose primary work is with organic chemicals have apparently succeeded in unraveling a baffling secret of nature. While their work was mainly concerned with moths, it may apply to many other animal behavior patterns.

The problem stems from an unusual fact. Scientists have noted that the male moth is able to locate the female moth

during the mating season over tremendous distances (as much as eight miles) and in spite of obstacles like fog, rain, snow and darkness! Since vision in these insects is rudimentary and in any case would not explain the matter, the scientists studied the insects and theorized. They decided that it was possible that the insects sent out their mating calls in terms of infrared rays. It was only a theory—but it was

a good one. Infra-red rays are ordinary electromagnetic radiations whose wave-lengths are midway between visible light and radio waves. They are at the long end of the visible spectrum. We know them as heat rays. Any object warmer than its surroundings by merely a few degrees broadcasts these invisible infra-red radiations.

The scientists first explored the furry thorax of the female moth and discovered that its temperature was often as much as eleven or twelve degrees above that of the surrounding air. The sensitive thermocouple easily detected that difference. This was a sure-fire clue. Unquestionably the insect was radiating infra-red. An additional fact that aided the discovery was the knowledge that certain organic chemicals (which the moth contained) are capable of radiating infra-red in certain bands or spectra, and in a certain periodic fashion with peaks and valleys of intensity.

Thus, in effect, the female moth is a brilliantly lighted beacon to the male moth, broadcasting subtle radiations which are the mating call even though the light is invisible.

A subsequent examination of the male moth disclosed that this insect has a posterior section equipped with very fine hairs

in a cluster or clump. The unique and significant thing about these hairs is that they are almost all of the same length differing only in terms of a multiple of the infra-red wave-length! The only resultant conclusion that can be drawn is that they are "radar" receptors for the radiation from the female moth. Because their lengths bear a definite relationship to the waves sent out by the female, they resonate or vibrate in accordance with the strength of the incoming radiation and thus enable the male to track down the female by following the beam! This is almost like a plane locating an airfield by riding a radio beam.

Checking on the receptor with suitable radiation demonstrated the accuracy of this reasoning. It appears as if many mysterious "calls of Nature" like the flying south of bird-groups etc. will have their explanation similarly in terms of radiations, either of the infra-red variety, or perhaps of the actual radio or radar-wave variety. Whatever the case, it is clear too, that Nature has anticipated Man in developing electromagnetic radiation detectors, just as she has in most other fields of physics. You can't beat Nature!

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Star Broadcasts

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By L. A. BURT

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SINCE NINETEEN forty-three there has been increasing activity in a field about which practically nothing is known. Radio astronomy is taking on more and more importance. Since Grote Reber discovered our own Sun pouring out radio emanations at two meters wavelength, astronomers have been scanning the sky with receivers rather than telescopes.

And an astonishing amount of information has been garnered. It has been discovered that most stars as well as the sun, deliver great quantities of what we would call short radio waves. This is not inexplicable in light of the fact that we know that giant clouds of electrons on the Sun's surface surge back and forth much like a primitive oscillator. And when electrons vibrate you get radiation of one kind or another.

There must be some sort of connection between the radiation from the stars and what goes on in their white-hot interiors, a connection that may well provide the answer to some problems disturbing atomic physicists. Unfortunately there is no way for astrophysicists to check their theories, though the radiomen can readily do so. Right now the whole subject is ripe for a unifying survey.

Sound Mutants!

☆

By JON BARRY

☆

THE MUTATIONS caused by cosmic x-ray, and atomic radiation are old hat. A great deal of knowledge concerning this type of mutation has been garnered in recent years. And efforts have been made to protect against it. Unfortunately a new source of mutant-inducing radiation is coming into wide use. It is super-sonics. As yet the danger hasn't been found in human beings or for that matter in animals, but very likely it exists.

Scientists have exposed plants to ultra-sonic blasts and then determined that the plant offspring indeed is mutated. The parent plants are unaffected, but not so their issue.

With ultra-sonics coming into wide use in industry and in military equipment the possible danger from this source must be reckoned with. Fortunately ultra-sonics has an extremely limited range and it is easy to put distance between one's self and the danger point. Also not many spurious device consume great quantities of power, thus minimizing further the effects.

Nevertheless, "forewarned is forearmed." Technicians and scientists working with this new technique can take appropriate steps to guard against the danger of contamination.

Nobody would listen to Bobby's warning of an invasion from space. So he dug up his water gun and went out to save humanity!



He struck the first match—and immediately alien voices began to speak in his mind



The Boy Who Cried WOLF 359

By Kendall Foster Crossen

LAWNS WERE sprinkled with new green and the buds in the nearby forest were swollen with color the day spring came to Universe City. A small boy ran out of a white suburban house. A cap pistol, with ivory handle, rode snugly in the silver-studded holster which was tied to his leg with real rawhide. When the boy reached the empty lots on the corner, he stopped and surveyed the streets with the experienced eye of a

ten-year-old. Not an adult around.

From one pocket, he drew a large kitchen match. He squatted on the sidewalk, pulled the head of the match along the concrete until it disappeared in flame. He held the match on a level with his eyes, watching the red and yellow flame. It climbed to a shimmering nothing, a thin thread of smoke picking up where the flame left off, and try as he could the boy was unable to see the next step in its

change. His gaze dropped and he watched the flame as it crept along the match stick, slowly squeezing the sap from the wood, its trail a blackened curl behind it.

It was then that Bobby Edwards heard the voice within his head.

Only it wasn't actually a voice. It was more like a thought—one that somebody else was thinking. He looked around, but the streets were still deserted. In some way, he knew the thought wasn't for him, that he was overhearing something that was private. He settled back on his heels, the dying match in his fingers, and listened....

THE SCREEN door closed with a bang. Bobby Edwards slid across the floor into his father's study, watching with interest as his father winced then forced a smile as he looked up from the papers he was grading.

"I wonder if rubber doors would help?" Harlow Edwards said mildly. "Or would that set up a destructive frustration?"

Bobby wasn't sure what his father was talking about, but he recognized the tone. It was the one his father used when he was only half serious. So he ignored it and came to the reason for his swift return.

"Dad," he said excitedly, "what is Wolf 359? Is it an animal?"

Harlow Edwards looked startled. "Wolf 359?" he repeated. "Where'd you hear about it?"

"Somewhere," Bobby said vaguely. "What is it, huh?"

"It think it's a star," his father said, not too sure of his ground. "A minor star, I believe, and pretty far away. Why?"

"I heard somebody thinking," Bobby said. "It was like a tickling inside of my head but I understood

almost all of it. A funny somebody—" He giggled— "Dad, did you ever see anybody who looked like a fire?"

His father's lips pulled up at the corners. "No, but I've known a few who acted as if they were on fire. Never mind," he added hastily. "Tell me about the thoughts that tickled."

"Well, *they* look like fires," Bobby said stubbornly. "There's lots of them and they're in a big ship that's maybe like our furnace on the inside only much bigger. I guess maybe they come from Wolf 359. Anyway, they're on their way here and they're going to land some time tomorrow. Right in the big woods here."

There was a strange look on his father's face and then it faded to be replaced by an expression which Bobby knew well. He sighed, wondering why it was that no matter what you said adults would always twist it around some way.

"Well," his father was saying, "that's quite an idea for a story, Bobby. Why don't you run along and think about it some more and then you can tell me the whole thing at lunch?"

Without waiting for an answer, he had turned back to the stack of papers in front of him. Bobby shook his head and trudged from the room. Adults, he thought, were funny—almost as funny as the man he'd heard thinking. He went through the kitchen, scooping up some more matches when his mother wasn't looking.

There was a tree in the Edwards' back yard, a towering beech which had often served as the jungle which was Tarzan's special domain. Bobby swung up into it, hooked his knees over a limb, rested his shoulders against another and relaxed. He struck a match on the trunk and stared at the flame. The thoughts had come more clearly when he had held the burning match....

HE WAS still at it when his mother called him to lunch, but he obediently snuffed the match out against the tree and slid to the ground. Knowing that it was necessary, he detoured through the bathroom, dabbed bits of water on his face and then used the towel to rub off the smudges of dirt. He slid into his place at the table just as his father entered the dining room.

"You'd think," his father said to his mother, "that a simple narrative style would not be too much to expect from university students in creative English. But most of them show less clarity and far less imagination than Bobby."

"That," said Bobby's mother, "is undoubtedly due to the fact that your students don't have the advantage of a father who is a full professor."

"I doubt if my influence is that telling," Harlow Edwards said. "My son's imagination outstrips my own. By the way, Bobby, how is your story coming along?"

"It's not a story," Bobby said, pushing the words around the half sandwich in his mouth. "I heard them thinking again."

"Don't talk with your mouth full of food," his mother said. "Now, what's this about hearing people think?"

"Bobby came in this morning with a wonderful idea for a story," his father explained. "What did *they* think this time, Bobby?"

While he washed the sandwich down with milk, Bobby debated the possibility of arguing the point now or waiting until he had added the new information. He decided on the latter.

"It ain't just a visit," he said, "like I thought at first. They're coming to fight us."

"Do they still look like fires?"

Bobby nodded.

"Well," said his father, "I guess we'd better stock up on matches—so

we can fight fire with fire."

"Don't make fun of him," Bobby's mother said. "You know what Dr. Stocker said about imaginative children. Why do they want to fight us, Bobby?"

"They need a new place to live and they picked here. The place where they've always lived ain't any good any more."

"That would be Wolf 359?" his father asked.

"Yeah. I think they looked at a lot of other places but decided on this one instead."

"How are they going to fight us, Bobby?"

"They ain't really going to fight us," Bobby said, "but they're going to set everything on fire and it'll be too hot for any of us to live. That's what they thought, anyway."

"Why are they going to set the whole earth on fire?"

"So that their own fires won't go out," Bobby said promptly. "Remember, I said each one of them is a fire? But if it goes out, they die. And that's what's going to happen to them if they stay on Wolf 359."

"Well," said his father, "if they only want a hot place why don't they land on our sun? That ought to be hot enough for them."

"They thought of that, Dad; but I guess the sun is a little too hot for them and won't cool off enough for millions of years. But they figure that the earth will get just hot enough if they start a chain—a chain—"

"Chain reaction," his father suggested.

"That's it," Bobby said eagerly. He sat up straighter in his chair. "They're going to land tomorrow in Hutchins Forest, right here next to Universe City. Dad, you've got to tell everyone in town and have them there when the ship lands. And they gotta have a lot of water and all the fire

trucks and everything. You gotta do it, Dad, or it'll be too late."

"Wait a minute, son, let's not get too excited. It's only a story, after all."

"It isn't," Bobby exclaimed. He screwed up his eyes the way he did when it was important that they believe him. "It isn't. It's all true. I heard *them* think every bit of it."

"Of course, it's true, Bobby," his mother said. She turned to his father and spoke in the guarded tones she sometimes used. "Harlow, why don't you and Bobby take a walk after lunch?"

"Probably is a good idea," his father said. "Some of these things get a little too involved for me. . . . Like to take a walk with me after lunch, Bobby?"

"Sure," Bobby said. He knew what the walk meant, but that was all right too. The more people who knew about it the better.

WHEN LUNCH was over, Harlow Edwards went into his study and they could hear the low murmur of his voice as he talked to someone on the phone. Bobby didn't try to hear what was being said. He had a good idea, so he concentrated on seeing if he could hear the thoughts again. He couldn't and after a look at his mother's face he decided not to strike a match. He hunched down in his chair and rubbed the snail shell in his pocket.

When his father came out of the study, he was wearing his hat. "Let's go, Bobby," he said.

They walked down the quiet street of Universe City and Bobby was thinking what it would look like after *they* came. Like a big match, he finally decided.

When his father stopped in front of an office building in the business section, Bobby was not surprised. Still,

he waited for his father to speak.

"Well," his father said with an air of studied casualness, "here we are at Dr. Stoker's office building. What do you say we drop in and chew the fat with him if he isn't busy? I haven't seen Doc in a week or so."

"Okay," Bobby said, suppressing a giggle. He remembered all the other times that he'd said or done something to confuse his father and they had always taken a walk which somehow ended in a visit to the same office building. Fathers were funny, he'd decided long before, and that explained everything.

They walked up the one flight of stairs and into an office. The nurse looked up, smiled at his father and disappeared through the door back of her. A moment later, Dr. Stoker appeared, a grin on his face.

"Hi, Harlow, it's good to see you," he said. "Hiya, Bobby."

"We were just walking by and thought we'd drop in to see you," Bobby's father explained. "Of course, if you're busy—"

"Not at all. The children of Universe City are just too healthy to need a psychiatrist. Nothing wrong with any of them that a bicycle or a new cap gun won't fix—eh, Bobby? Come on in."

THEY FOLLOWED him into the private office and Bobby stared idly out of the window while his father and the doctor talked about golf and baseball. This, he recognized, was part of the game so he waited patiently.

"Say, Bobby," his father said suddenly, with a false air of being struck by a new thought, "why don't you tell Doc here about your sto—about Wolf 359? I'll bet he'd like to hear it."

"Okay," Bobby said indifferently. When adults refused to believe you,

he'd learned that it worked better to pretend it wasn't too important. He repeated the things he'd told his father, watching the way the doctor's face kept showing surprise and interest.

"That's quite a story, Bobby," the doctor said when he'd finished. "Quite a story for a boy of your age. Did you make it up entirely by yourself or did someone help you?"

"It's not a story," Bobby explained patiently. "I heard them thinking all of that. They thought some more that I could only hear part of because I didn't have any matches to light. It helps when I light a match. I guess maybe they're so close now that's why it helps."

"Not a story, eh?" the doctor said. He swung his chair around and twisted his mouth as though he were going to whistle. He stared at the ceiling the way he had the time Bobby had told him about the horsehair that turned into a snake. "Not a story, eh? Let me see now—seems to me I remember something about Wolf 359." He winked at Bobby's father. "What do you know about it, Bobby?"

"It's *their* home, that's all, I guess," Bobby said. "It's something like the earth only it's all covered with fire."

"I should think it would be," the doctor said. "Wolf 359 is a star so far away you can't see it unless you have a pretty powerful telescope. It's about the faintest star we know about. But it's a red star, which means it's pretty hot. You know how hot boiling water is, Bobby?"

"Yeah."

"Well, boiling water is only a little more than two hundred degrees hot, but Wolf 359 has a mean temperature of about six million degrees. Now, how do you think anyone could live there?"

"They ain't people," Bobby explained. "Not like us anyway. They

look like a tall fire, maybe."

"You mean they're just flames all the way through? No bones or anything?"

"Sort of." Bobby struggled for words to cover the thoughts he'd heard. "Inside, they're mostly pure—pure carbon."

"I guess they'd have to be at that," the doctor said with a laugh. "Now, look, Bobby—have you got a name for these people? You know, like we're humans."

Bobby shook his head. "I guess maybe they've got a name for themselves, but they didn't think it. One of them, he's kind of like a captain, is called Shrxl. But I don't know about all of them."

"No name, huh?" the doctor said. "Well, then, let's look at another angle. What did you say they're going to do to our earth when they get here?"

"Set it on fire. Then when everything is burning, the rest of them will get in ships and come here."

"Why do they want to set the earth on fire, Bobby?"

"They have to so they can live here," Bobby explained once more. "They can't live anywhere unless it's hotter than anything."

"But," said the doctor, and he looked triumphant, "the temperature is six million degrees on Wolf 359. So why don't they just stay there?"

"Because it's cooling off," Bobby said. He was thinking about how long it took adults to understand anything. "Pretty soon it'll be too cold there and they'll all die. That's why they have to find a place with plenty of carbon."

"I see," the doctor said. He leaned back and placed the tips of his fingers together. "Now, you say they're going to land in Hutchins Forest tomorrow morning?"

"That's right."

"Now, why do you suppose they're picking that spot to land in? You got any ideas on that, Bobby?"

"Sure. They were thinking there's lots and lots of coal under the ground there and once they set fire to it then everything else will catch fire from it like a—a chain—reaction."

"That ought to prove something," Bobby's father said, looking at the doctor. "There never has been any coal fields around Universe City."

THERE WAS a funny expression on the doctor's face. "Not exactly, Harlow," he said. "They've just recently discovered that there is a very rich vein of coal under the Hutchins Forest." He lowered his voice. "Must have heard someone talking about it." He turned back to Bobby. "Anything else, Bobby?"

"No, sir—except that everybody in town ought to be warned and everybody ought to be out there when they come. I—I think they're afraid of water and maybe of guns—at least, they're afraid we'll have some sort of terrible weapons."

"Of course, we'll have to do something about it," the doctor said promptly, but it was a tone which Bobby recognized and so he gave up hope. "Now, Bobby," the doctor continued, "why don't you look at those magazines over there while I talk to your father? I think you might even find a comic book or two if you look real hard."

Bobby obediently marched across the room and started looking at the magazines, but by straining he could hear quite a bit of what the doctor was saying to his father.

"Nothing to worry about," the doctor said, his voice low. "It's very common for children to believe these things are real.... many cases where they believe that imaginary play-

mates are real.... mustn't frustrate him.... question of directing his imagination into more productive channels, that's all.... Probably comes out of an interest in fire.... Why don't you try buying him one of those chemistry sets for kids? Amazing kits.... have everything up to and including miniature atomic explosions.... work at it with him and you'll find he'll forget all about Wolf 359.... Although it would be interesting to know where he learned about it. It doesn't even have a separate listing in the encyclopedia...."

Bobby put down the magazine and walked out with his father. He made no more mention of the fire-men who were coming. Once, just before they arrived home, his father brought it up again, but Bobby only said: "Oh, that!" and threw a small rock at a sparrow. During the rest of the afternoon, he chased the neighbor's cat, tied one of his mother's hair ribbons on a dog and skinned both knees while rollerskating.

EARLY THE next morning, as soon as he finished breakfast, Bobby went to his room and put on his Hop-along Cassidy shirt and pants. He buckled on his belt and holster, tying the holster down to his leg. He stood in front of the mirror and twirled his Western Hero gun several times and then jammed it into the holster. After some thought, he dug up another old holster and rigged it up to fit under his armpit, out of sight beneath his buckskin vest. He fitted his repeater water pistol in to this and swaggered from the room.

"Thank heavens," he heard his mother say as he left the house, "he's reverted to being a cowboy again."

He stopped once to exchange a few words with Sonny Elliott, who took one look at the low-slung holster and knew its importance.

"Where you going?" he asked.

"Hutchins Forest," Bobby said. He looked around to see if there were any tenderfeet in sight. "There's going to be a raid," he explained. He nodded toward the sky. "From up there. Wanta come along?"

"Nah," Sonny said scornfully. "We played The Martians Are Coming last week—and you made me be the Martians. Besides I'm building—something."

He was mysterious, but Bobby wasn't interested. Instead, he brushed aside the mystery with a careless wave and went on. He skirted the university campus and shortly came out on the edge of the forest.

Entering the forest, he began to slip from tree to tree, going so quietly that not a single squirrel scolded him for the invasion.

A few minutes later he reached the spot, deep in the woods, where there was a slight clearing. It was there that he was sure the ship would land. He crouched behind a giant oak and took up the long vigil, pretending to roll a brown paper cigarette.

And at last it came, with a hiss and a sort of silent roar that shook the very ground beneath his feet. Like a huge ball, the side shimmering with contained heat, it dropped between the trees and settled to the ground. Wisps of smoke drifted up from where it touched and the fresh air of the forest took on a scorched smell. Green leaves shriveled and curled where it had brushed against them in passing.

For several minutes it lay there, inert, little flames licking up from the dead leaves beneath it. A large square patch turned iridescent and vanished, leaving a hole from which poured fire. The flames reached farther out, twisted hungrily in the air, and began to take on form. Each flame budded and grew, until a dozen of the flame-men

stood on the ground, the earth smoldering beneath their febrile feet. Their bodies were slender and lambent, changing from yellow to deep orange, their heads curling to a blueness that almost matched the air. Blazing and questing, they turned this way and that, yearning for the carbon beneath the ground.

Crouched behind his tree, Bobby Edwards ("marshal" of Universe City) brought his hand down in a lightning draw, his gun clearing the holster without a whisper of sound. His left hand fanned down across the hammer and the cap cracked spitefully. The flame-men turned to meet the tiny flash, their leader swirling nearer to the tree.

FOR A BRIEF moment, flame-man and earth-boy stared deeply into each other and in that minute the boy knew that neither cap nor bullet could dim the threatening glow. Straightening up, he flung the Western Hero gun into the blaze, watched the metal melt and flow. Even as one of the flame-men moved toward him, flaring brightly in anticipation, Bobby Edwards brought out his water pistol in a cross-draw that would have been the envy of any boy in the land.

The stream of water went true to its mark, steamed and hissed as it struck. The flame-man hesitated, giving up a little of his life in vapor, and Bobby Edwards fired again. From head and feet, the living fire rushed to the wound, forming into an angry orange ball. And the water struck—struck and struck again. The flames licked at the wound and died. Spark by spark, the flame-man gave up his life, then died in a gush of steam. The embers fell to the ground and gave their last breath to a dried leaf.

Flame-men and earth-boy, alike, had stood and watched the death struggles of the one conquering in-

vader. The dead ember broke the spell. The flame-men wavered, flickering in sudden fear, then fled into their ship. The opening in the ship flared brightly and closed. Heat flooded from the sides, the metal turning an angry red, and the ground shook as the great round ball left the earth in a rush. It flashed once in the sky, like a bright exhaust, and was gone.

The fire in the woods crackled loudly in the remaining silence. Following the trail of leaves, it fastened on a dead tree, and the flames leaped high. Bobby Edeards turned and ran for the city.

On the way, he heard the keening wail of a fire siren and knew the smoke had been seen. Once he caught a glimpse of the red truck hurtling through the streets in the direction of the forest.

The screen door banged loudly and Bobby skidded to halt in the doorway to his father's study. His father was bent over a large box, looking as pleased as he had at Bobby's first train set. Before Bobby could say anything, his father looked up and gestured happily.

"Look what we have, Bobby," he said. "It's one of the newest chemistry sets. I've just been reading the instructions and if we take this bottle of uranium and—"

He went on in a very real excitement and Bobby began to catch some of it. A few minutes later, the two of them were busily bringing about a minor atomic explosion, while the Universe City firemen were putting out the last of the blaze in Hutchins Forest. One of the firemen unknowingly stepped on a piece of twisted metal and trod it deep into the ground. And the chemistry set was such a success

that the loss of one Western Hero cap pistol was never noticed.

SHRXL LANDED the ship on the Flame-Port and, breathing deeply, walked through the swirling fire to report.

"Shrxl reporting," he thought to his commander, "with one dead. Prtzl was killed by an inhabitant of the world we visited. My report is that the third planet of the sun we observed is unfit for habitation. It now supports some form of native life—extremely condensed so it must be of a low order—which is too dangerous. So barbarous are they that even their young carry the deadliest weapons known to the universe. One such young animal murdered Prtzl and drove the rest of us away. We must find a more civilized world."

Shrxl's report was accepted without being believed. For centuries the flame-men had known the thoughts of the strange life on that third planet. They knew it was a mighty race, because it had no fear of water, and they respected the intelligence of the race, had in fact borrowed from that intelligence even to accepting its name for their home world. So they could only conclude that the third planet's life form had in some way attacked Shrxl with a deadly ray which confused his imagination.

While the search went on for a habitable world, Shrxl was turned over to the care of a flame-therapist. It wasn't long before he was so absorbed in building miniature water-bombs that he completely forgot the horror of the day he faced a monster in an alien world.

- THE END

VIRUS VENGEANCE

By CAL WEBB

★

THE FILTERABLE virus, that gigantic molecule, that huge protein compound, which lies at the root of so many of Man's so-far unconquerable diseases, is beginning to reveal clues to its behavior, clues which may enable scientists to attack it with some success. Two tools are in the forefront of this battle. The use of radioactive tracers, and the electron microscope, both lend their power to the battle with the common cold and with polio.

A new theory, discovered through the use of "tracers" leads scientists to believe that the viruses attach themselves to the body cells by means of electrical attraction, much like an ion is attracted to another ion of the opposite charge or like an electron is attracted to a positively charged plate. In fact, viruses contain within themselves, within their large molecular structure and in the surrounding environment a fair number of ions or electrically charged atoms or molecules.

Using the electric field created by these

ions, the viruses are able to attach themselves to the cell wall and then break through it. Using a variety of other ions, principally of a metallic nature, the scientists destroy or neutralize this electrical attraction and thus protect the cell. At present it seems to be a matter of preventing the attachment, and ultimate penetration. Once the latter has been achieved, it is too late to do anything about it.

Along with these potentially fruitful investigations, more knowledge of the growth of viruses is being accumulated. For example, the way in which viruses "grow" or "reproduce" has been the subject of analysis. The study has been done on viruses growing within the cell they have infected.

This is important because until now the only viruses with which scientists had thoroughly understood the growth processes, were the "bacteriophages", which are viruses which destroy and assimilate bacteria.

PROGNOSTICATOR PLUS!

★

By PETE BOGG

★

HUGO GERNSBACK, grand old man of science-fiction and first editor of *Amazing Stories*, is a man to be reckoned with. Book reviewers and scientists have taken note of his famous "Ralph" book, written back in nineteen eleven, before most people had even thought of the idea of fiction about the future. The reviewers are particularly startled by the book because of Gernsback's uncanny sense of prognostication. He called the turn on so many familiar gadgets and devices of today that they're convinced he must have been in league with the devil!

Television, radar, the wide use of the automobile, the helicopter and a thousand other things were faithfully and accurately foretold in Gernsback's volume. He himself had the satisfaction of seeing many of these develop even while he was editing *Amazing Stories*.

One particularly noteworthy prediction involved his description of radar. In terms of very high frequencies and short waves, in terms of parabolic reflectors and transmitting and receiving antennas, Gernsback hit the nail on the head. It is rather chilling to read his description and then learn that the result only occurred three and a half decades later!

Gernsback frequently gives forth with sound predictions even nowadays. He is

keenly conscious of all forms of technical gadgetry and he makes a point of discussing the matter. Aware of the omnipresent danger of modern war, the utter devastation of the atomic bomb etc., Gernsback calls for wide governmental manufacture and distribution of warning devices ranging from Geiger counters to self-contained miniature receivers. The unique thing about Gernsback's predictions is that he is generally not vague, but direct and descriptive, accurately foretelling in detail what he expects. And time has a way of proving him right.

A study of Gernsback's career in technology and science-fiction shows that he is one of the rare types who can see a lot farther than his nose, but not in nebulous fantasies alone. His detailed descriptions of hearing aids and devices for aiding the blind, talked about during the early nineteen twenties, are amazingly accurate forecasts of what we are developing today. The same is true of the brief he held for electronic television when it was the fashion to predict that the mechanical scanner would lead the field.

You can't ignore a man like that. Gernsback is representative of the finest type of amateur scientist, professional technician and eternal science-fiction fan!

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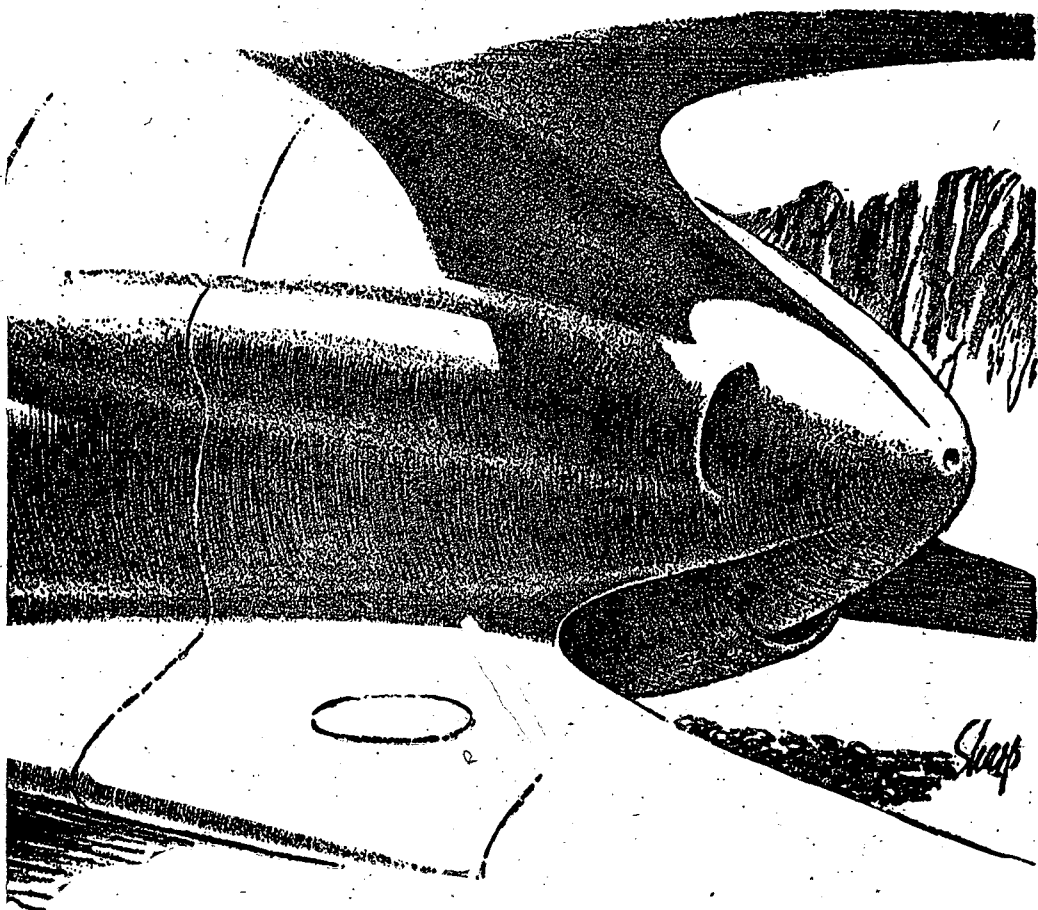
GORDAK'S CARGO

By Milton Lesser



The girl continued to struggle as the net was hauled up to the ship. . . .

Gordak collected freaks from all over the Solar System. What he didn't know was that he had become their helpless captive!



A WISTFUL look crept into the spaceman's eyes. He raised his glass of fiery ptah to the tourist who had cornered him here in Kelly's Marsport Bar, and said: "Yes, I knew Gordak, and I know the story of the Snow-maid. It's been a long time."

"Tell me," the tourist insisted. The

story of Gordak, and the Snow-maid had become, in ten years, half legendary. Twisted, distorted, it was a veritable saga of the spaceways, a chimera tale for the eager tourists.

The spaceman lost himself for a time in the amber depths of his drink.

"To understand," he mused, "you'd have to know what Gordak was like.

And you'd have to know the albino girl, Snow. Then there was B'jak of the Spider People. You'd have to know 'em all."

"Tell me," the tourist said again, eagerly.

The spaceman drank deeply of the heady ptah. "We've come a long way in ten years," he said. "A decade ago, any extra-terrestrial being not quite human was fair prey for the interplanetary circuses. The most fabulous of all was Gordak's, yet Gordak himself wasn't quite human..."

* * * *

Gordak elbowed his way to the imported mahogany bar of 'Kelly's Marsport. Spacemen and tourists alike moved over readily enough to give him all the room he wanted. There was something of the macabre about the gnarled little half-breed, something distasteful and horrid which told people to avoid him.

Carstairs, however, didn't. He pushed his way through to Gordak's side and asked, "You're Gordak, aren't you?"

The gnarled little man nodded. "You are punctual, I see, Mr. Carstairs. Can you take a spaceship up as promptly?"

"I sure can," Carstairs told him. Despite the fact that he was unemployed, he was proud of his spaceman's training. Carstairs could astrogate, and he knew it. His unemployment, of course, did not indicate a lack of ability. 2139 was a lean year in which the outer-world colonists had settled down seriously to the task of civilizing the virgin worlds. As a consequence, Luna's astrogation school had graduated a considerable surplus of first-rate astrogators. Carstairs had been caught in the shuffle.

Now he needed a job, badly. The rat-race of the legitimate freighter service had red-taped his credentials on the wrong end of a long waiting

list. Thus it was that he turned to Gordak.

He showed him the photostat of his credentials. The half-breed gave them a cursory examination and, satisfied, he nodded. "You'll do, Carstairs—with one reservation."

"What's that?"

"You are to astrogate for me, that is all. Outside of that, you are to mind your own business." His voice was an odd mixture of the deep-throated Martian and the accents of an earth bred human. "I'll pay you well: fifty solar credits a week."

If Carstairs sensed the hidden menace in his employer's tones, he ignored it. He said that the set-up suited him fine, and when Gordak returned his credentials, he followed the little half-breed out of the Marsport Bar and hurriedly through the chill night air of Marsport Avenue to the spaceport.

THE SPACESHIP was one of those old freight-tubs which had been converted for circus use, with thirty years of extra-asteroidal service behind it. Carstairs realized with a smile that this was no *Star Queen* he was getting, and when he mentally compared the smooth lines of that great luxury craft with the stubby silhouette of Gordak's *P. T. Barnum*, he chuckled softly to himself. Well, these days a job was a job, and Carstairs felt thankful enough.

His first surprise came when Gordak told him to blast off at once.

"But I'll have to compute an approximate orbit to our destination," the astrogator argued.

"That will not be necessary," Gordak assured him, "since we are not yet ready to leave Mars. You will rocket the *Barnum* to the South-Polar co-ordinates I have designated on the chart. At once, Mr. Carstairs."

Carstairs shrugged and sat down

in the pilot's seat. He could not imagine what Gordak could possibly want on the barren tundras of the south-polar region. Equatorial Mars wasn't much warmer than Earth's temperate zones in mid-winter, but life was at least possible. People referred to South Polar Mars as the Ice Box, and they weren't kidding, even if the term were a bit antiquated. Utterly lifeless, except for the fanciful rumors of the Snow People who existed deep within the mountain grottos. Surely Gordak wasn't the type to be taken in by mere rumor...

* * *

When Gordak had not returned for three days, Carstairs became restless. He had eaten and slept in a monotonous routine and he had read a few books from Gordak's library, but the endless white blanket of snow outside and the hot-house atmosphere of the *P. T. Barnum* had combined to make him restless. Snow Man or whatever Gordak sought out there on the ghostly white tundra, he wished the little circus-master would find it.

On the morning of the fourth day his boredom got the better of him. It may be that he forgot Gordak's warning to mind his own business, or it may be that he discarded it in favor of the driving impulse of his own restlessness, but at any rate, he left the pilot's quarters and descended a ramp into the tubby 'low-decks of the ship.

He came upon the spider man without warning. One moment he stood in what had been the main hold of the converted freighter, the next, he had opened a door and strode into a dimly-lit cubicle.

The spider man clung with eight legs to a gossamer tapestry of countless silver threads, weaving a fairyland of imagery upon the warp and woof of his own secretion. The shaggy head, as big as a man's, oddly gave the suggestion of a neck-like attach-

ment between itself and the thorax as the creature turned to regard Carstairs. The eyes that stared at him were big and lidless, yet almost human.

"I am B'jak," the words came from the spider-mouth in clacking monosyllables.

"You—speak!" gasped Carstairs, amazed.

"And why not?" the creature called B'jak responded. "As a matter of fact, my friend, I am something of a linguist. My webs and my knowledge of language—these keep me occupied when otherwise Gordak's strange trade would drive me insane. Of course I speak: I have mastered fourteen languages, mostly outer-world dialects, with which I amuse myself." B'jak dropped soundlessly from his web to the floor. He clicked again: "Since you are fully human, you are obviously not a new addition to Gordak's cargo. I assume you are the new astrogator."

Carstairs told him he was. But his thoughts whirled hopelessly distant from his role here on the *P. T. Barnum*. This spider man had intelligence equal to a human's. Yet he was caged to perform at Gordak's shows; chained to the will of Gordak; his life a feeble flame which Gordak could snuff out with no consequences whatever.

THE SPIDER-HEAD nodded on the suggestion of a neck. "I know what you think, astrogator. Someday, perhaps, this will not be. In the meanwhile, Gordak accentuates the gravity of the situation by—"

Carstairs had not heard the outer lock open, so engrossed had he been with the spider man. Nor did he hear Gordak, relieved of his space-suit, come stomping down the corridor. The door opened suddenly.

"Mr. Carstairs," the half-breed's

tones were ice, "I thought I told you to keep to your instruments. If you will be kind enough to leave?"

Wordless, Carstairs withdrew. But something told him to remain within sight of the open doorway, and he did. He saw Gordak remove a coiled lash from his thick belt, saw B'jak cower in a corner opposite his web of tapestry. Gordak approached the web. He looked at it. If there was admiration on his face, it left quickly, and Carstairs could see anger replace it.

He watched the lash flick up and then down in sure strokes. It slashed cruelly into the silver tapestry, and moments later, all that was left was a tangled mass of gray cottony stuff. B'jak cowered in his corner, as a spider might retreat to the furthest corner of its web when a housewife appears with her broom. But, muttering to himself, Gordak left the cubicle.

In the corridor, he collided with Carstairs. He glared at the astrogorator, almost on the verge of raising his lash again. Finally, he turned on his heel and disappeared down the corridor.

Carstairs returned to B'jak's cubicle and called the spider man's name several times, but B'jak remained sulking in his corner, unaware of him or choosing to ignore him. After a time, he returned to the pilot's quarters.

Presently, Gordak entered. He made utterly no reference to the incident and Carstairs for his part had no desire to broach the subject. Gordak, in fact, seemed entirely pleased with something. He even smiled his mirthless smile as he told Carstairs to compute an orbit for Earth. "You may radio ahead to New York spaceport," Gordak concluded, "and blast off whenever you are ready."

The computation of an orbit is not hard work. Much of it is mechanical,

since the orbit is only a temporary one anyway, allowing plenty of room for what the spacemen call "ether drift" or for any chance encounter with cosmic debris. As one half of Carstairs' brain computed, the other half actively considered the strangeness of his employer. Could the apparent motiveless malignity of Gordak be explained by the appearance of the man? His body was gnarled and twisted, forged in hell-fires by a cross-eyed demon. And his face was a catastrophe. Thick and leathery Martian skin hung in great folds from the gaunt cheek-bones, draped loosely over the sunken cheeks, puffed as if filled with air under the deep-set eyes. The nose was twisted and broken, it seemed, in a score of places, and the mouth stretched out in a perpetual leer made all the more hideous when Gordak attempted to smile.

Now, thought the astrogorator, if Gordak sensed that his features instilled nothing but revulsion for him in men, did he attempt to save his warped self-respect by asserting his own superiority over the other world denizens in his circus troupe?

Did Gordak vent a thoroughly agitated spleen on B'jak the Ioan Spider Man and the score of other performers under his control? Carstairs found this to be a distinct possibility, and his attempted indifference to Gordak's policies began to move aside and prepare for the entrance of hatred.

All this went through his mind as he computed the orbit, but he forgot it momentarily when he pressed the blasting levers and lifted the *P. T. Barnum* off the southern tundras. In a few moments, Mars became a big red globe through the rear observation scope, and in another few moments, Carstairs had turned the ship over to automatic, stood up, and lit a cigarette.

Gordak called him through inter-

com. "Mr. Carstairs," the voice said, metal-toned, "I need some help 'low-decks."

Now, the astrogator knew this wasn't part of his job, but on the other hand, the entire crew of the *P. T. Barnum* consisted of himself and Gordak. If Gordak wanted him he had no choice but to obey. Putting out the cigarette, he descended the ramp and searched for Gordak.

THE CIRCUS net is an ingenious affair. As he neared his employer, Carstairs realized that. Whatever Gordak sought upon the tundras of the south polar region, it was apparent he had found it, apparent that it twisted and writhed futilely now in the net. On the outside it is like any other net of strong wire mesh, but on the inside it is sticky like the web of a spider. The more a captive animal struggles, the more entangled it becomes.

"As I open the net," said Gordak, panting, "you grab the creature if it attempts to flee."

Carstairs nodded. Gordak's hands manipulated the zipper front of the net, and presently Carstairs could see within the opaque mesh. At first there was nothing but a gleaming whiteness, but as Gordak spread the opening apart to relieve the adhesion, he saw an arm, a delicately molded arm of glistening white, of a pale sparkling white that only the Martian snows, untouched and utterly virgin in the thin, dustless air, could match.

"I will call her Snow," Gordak declared as the girl sat up, as one might matter-of-factly dub a pet mongrel.

The girl stood free of her prison slowly, like one unaccustomed to the newness of a situation, and in no hurry to find out about it. Carstairs gasped. If he had ever seen so beautiful a girl before it was in one of those fanciful dreams which comes

once in a lifetime and which you know is a dream because of the impossible beauty of your vision.

He had to admit, grudgingly, that "Snow" was a good name. The whiteness of the girl was of new alabaster, of the flawless white that a pearl tries to capture but cannot. Even the hair, flowing in a cascade of tresses almost to her waist, was a sparkling silver, an incredible billowing of molten mica.

Carstairs blushed. The crown of that silvery head reached not to his chin, and from it to her delicate feet, the girl stood naked. Hurriedly he draped his long spaceman's jacket over her shoulders. It hung loosely half-way down the whiteness of her legs and the girl looked quizzically at Carstairs as if to say, "Now, whatever did you do that for?"

He smiled at her reassuringly, and she smiled back, then said in a voice of molten silver, "*Quey esi kor?*"

"Honey," Carstairs responded, "I don't understand a word of it, but don't you worry. Don't you worry about a thing."

"Oh, come now," chided Gordak, fumbling with Snow's arm and leading her back towards where B'jak's and the other cubicles lay. "She's an outer-world creature, Mr. Carstairs. She may look human to you, but that shall merely be her appeal to our audience. She's hardly human, you know."

Carstairs snorted angrily. "She is human!" he insisted.

For a long while Gordak stared at the incredible whiteness of his prisoner. "Perhaps," he mumbled thickly, "perhaps she is almost—woman. Yes—" And frowning, Carstairs saw something which must have been dead a long time come alive in Gordak's eyes.

As the days passed, Carstairs saw almost nothing of Snow. Somewhere 'low decks she lived in her little cu-

bicle along with B'jak and the other members of Gordak's troupe. As for Gordak, the man seemed oddly distracted, like a sleep-walker who awoke long enough to snap a cursory order or two at his employee, but who walked about for the most part completely withdrawn. Once he did see the two of them together, when Gordak took the girl 'bove-decks for a costume to match her strange beauty. The half-breed seemed immensely pleased with himself, but Carstairs was aware of a new look in the innocent expression of Snow, a look which both questioned and pleaded and which, he realized angrily, had something of fear in it. He tried to catch her eye, and when he fancied he did he essayed a brief smile but if Snow saw it she gave it no heed.

Carstairs found himself grumbling half aloud, and for want of something better to do, he took the ship off automatic and piloted it himself for a while.

ONE MORNING when they had perhaps bisected the distance between Mars and Earth, Gordak seemed oddly unnerved. With Carstairs he had always been taciturn, although for him that implied a certain amount of sharpness which bordered upon irritability but never quite reached it. He told the astrogator:

"In the future, Mr. Carstairs, whenever my work calls me 'low-decks, I want you to accompany me. Bring this," he added, and gave Carstairs a p.g. gun.

The wicked, snub-nosed proton-grid pistol was deadly at close range. Carstairs knew, but that didn't bother him. In the event that it was necessary, he knew he could handle the weapon. But why should Gordak suddenly need him in such a capacity? His sadistic handling of the troupe, as evidenced by B'jak, had resulted in

nothing but a stoney hatred. Now if he felt danger lurked 'low-decks—Carstairs frowned.

That very afternoon—for convenience, interplanetary voyages are run on earth mean time—he joined Gordak in a descent of the ramp. He had never seen the creatures of Gordak's troupe in their period of recreation, but it was apparent to him that they could not remain indefinitely in their tiny cubicles. What had been the main hold of the ship was converted into a sort of bare lounge, and to this they made their way.

Never had Carstairs seen anything like the scene which met his eyes. If a Djinn conducted him on a tour of fairyland where elves and gnomes and giants and other nameless things might play, he would have seen something like it. All the odd creatures of a dozen faraway worlds milled about in little groups talking. At first it seemed impossible to Carstairs that they could so talk among themselves, but then he was aware of the dark bulk of B'jak scurrying about from group to group, clicking rapidly with his strange voice. For all these creatures the spider man was a master linguist!

Carstairs took all this in with one swift glance, and he would have noticed more, except that at that moment he saw Snow. He would have noticed that as Gordak entered the lounge, the tones of the score of voices changed. The languages, of course, he could not comprehend: there was no Lingua Franca among the denizens of Gordak's cargo. But the tones changed: resentment replaced what had been a babble of conversational voices; resentment which oozed hatred in a score of different languages. B'jak's clacking became sharper, agitated, frenzied. Then it became sullen, and all the voices were silenced.

None of this Carstairs noticed. He

saw Snow. If he had thought the girl beautiful in her wild innocence that first day aboard the circus ship, he thought her vastly more so now when fear covered the innocence like a cloak. This time he was sure he had caught her eye and when he smiled again, she hesitated, almost as though for an instant her heart poised undecided before the next beat. Carstairs realized that perhaps she associated him with Gordak. But then she smiled wanly herself and the fear crept from her face as he neared her.

"Keep your gun ready, Mr. Carstairs," Gordak barked, sending his creatures one by one through their acts. "Step back against that wall, please, and remain alerted."

Carstairs shrugged helplessly and did as he was bid, acutely conscious of the fear again on Snow's face.

He drew his eyes away from the girl and watched. Now Gordak's rubbery Callistian gyrated about the lounge, manipulating his body in incredible contortions. Carstairs knew his limbs and torso were jointed like the body of a serpent rather than a man's, yet still he watched, fascinated.

A stumble, a mis-step, the slightest indication of what to Gordak was an unwarranted clumsiness, and the little half-breed would snap his whip, shooting the thin lash out across the bare shoulders of the Callistian. That it hurt was evident by the fact that the creatures winced and stumbled all the more, but it seemed accustomed to such treatment. Gordak felt no fear at this point, for he forgot Carstairs completely and went about his business, his face twisted in the leer which passed for a smile and which Carstairs felt certain had nothing of mirth in it.

A HALF dozen other creatures performed under the tutelage of

Gordak's whip. Then a giant of a man stepped forth, human in form, but eight feet tall and proportioned like a Hercules, with slate-gray skin and a single big green eye surveying Gordak severely from the center of the great forehead. Carstairs had heard of this creature, had heard of the fabulous strength of Polyphemus, Gordak's Tritonian Cyclops. He watched now as the towering being performed his feats of strength, bent his metal bars, lifted his huge metal weights. For all the strength indicated, there was something gentle about Polyphemus, and Carstairs saw his utter indifference to Gordak's whip, as the circus-master employed it for what he considered a shoddy performance but for what, in truth, left Carstairs amazed.

He turned away, slightly sick. Almost human these creatures were—surely with as many human traits as Gordak himself possessed, yet he treated them like dumb brutes. Well, Carstairs could understand their hatred, but he had to admire the Stoical indifference displayed by the performers. He admired it, but he pitied it as well.

Then it was Snow's turn. An angry buzzing came from the score of alien throats. Their indifference was replaced by hostility. Carstairs could sense that, and so could Gordak.

"Keep your gun ready!" he ordered.

Carstairs fingered the gun and then replaced it in his pocket. B'jak crawled over to him and said, "Greetings, astrogator. I see you watch our antics."

Carstairs smiled. He liked the spider man. "It is an order," he explained.

"Your weapon—" B'Jak began, but he left the sentence unfinished, aware that Carstairs was not listening.

Snow had started her dance.

Gordak had robbed her in a trans-

lucent gown of palest blue, a film of clear sea-water on the moon's surface as Snow's limbs sparkled and flashed beneath it. That the dance had captured within it all the voluptuous grace of her sex, this Snow did not know. That her supple gyrations flowed like a stream of the molten silver her hair resembled, this too she did not know. But Carstairs realized it: he knew that Gordak's albino girl danced with an inherent femininity which would make all other women seem as stiff as automatons.

Gordak's albino girl! He did not like the sound of it.

Around the room and around again whirled Snow. She was lost in the maze of her motion: nothing else mattered. For a time, Gordak too seemed lost in the beauty of what he watched. But there was something loathsome about his eyes as they followed Snow's flowing pirouettes. The ugliness of his frame; the demoniac countenance; these were as nothing: the eyes were pits of hellish desire, intent upon Snow!

After a time, the girl saw Gordak's face. She trembled a little, she forgot her dance. She stumbled momentarily and whimpered, uncomprehending but afraid. With an effort Gordak shook his head to clear it. He struck out with his lash, flicked it across the girl's white shoulder.

A score of throats groaned, muttered, threatened in a score of languages, Stoic no more!

Snow winced and stumbled again. The whip flashed out. Polyphemus the Tritonian Cyclops stood up. His great barrel of a chest heaved. He strode forward one giant step, and another.

B'jak clacked a warning at him in some unknown language.

Polyphemus' giant fists clenched and unclenched. A great tear welled up in his Cyclops eye, gushed forth, rolled

down the length of his nose, splashed on his tunic. The giant was crying!

WITH AN oath, Gordak turned upon the huge figure. He looked long and long into the great eye, then he shrugged. "Enough for now," he told Carstairs, chuckling. "Do you like my show? On earth they'll love it. And how they will adore my Snow!"

Wordless, Carstairs watched the little figure mount the ramp. Gordak turned once and glanced at Snow, slumped against a wall, head bowed. For an instant that look of loathsome intent crept again into his eyes. Then he wheeled about and strode up the ramp. Carstairs fingered the p.g. gun in his pocket, took it out, sighted up the ramp towards Gordak. Cursing, he hurled the gun to the floor.

A moment later, he was aware of a pressure on his thigh. He looked down and saw B'Jak the spider man pulling for attention at his trouser leg.

"She's been here less than a week," the Ioan clicked, "and already they all love her."

"What do you mean?"

"I have never seen anything like it. There is not a being in this lounge who would not die for Snow. She is so kind, so divinely simple, so understanding. She feels for us all. Every-time Gordak used his lash, it is as if he used it on her. She cries. It works both ways, astrogator. You saw Polyphemus?"

"I saw," said Carstairs. "He would have killed Gordak—"

"I know. I stopped him. I cannot stop him indefinitely. That is why Gordak asked you to join him. If—"

Overhead, a light winked on. Gordak's voice blared forth. "Mr. Carstairs, I told you you are to tend to your own business. Come 'bove-decks, please."

As Carstairs turned to go, Snow

confronted him. She stood on tiptoes and peered into his eyes as if in that way she could understand him better than if she had known him all her life. For a long while she peered thus, one hand soft and warm on Carstairs' shoulder. Then she backed away, smiling at him. "*Klar esni o nan*," her voice tinkled.

"What does she say?" Carstairs demanded.

"She says," B'jak told him, "this one is different."

FOR THREE days Gordak said nothing beyond what was absolutely necessary to Carstairs. Each lived in his own private world of thoughts, except when Gordak had a desire to venture 'low-decks, at which time he ordered the astrogator to accompany him.

The *P. T. Barnum* was coasting in free-flight now, and Carstairs knew that in a matter of hours he would have to begin deceleration. Already the lopsided dumbell of the earth-moon system assumed big proportions in the observation window, growing all the time. Here in space, with no atmosphere to intervene and discolor, the moon seemed as silver-white as the delicate skin of Snow.

Gordak entered the pilot chamber. From the way he weaved uncertainly against first one wall and then the other of the narrow passageway, Carstairs knew he had been drinking heavily. It reminded him oddly of the days when each spaceship floated in space without a gravity-equalizer.

The gnarled hand of the half-breed rested heavily on his shoulder. "Mr. Carstairs," he said, "I am going 'low-decks."

Carstairs got up, preparing to put the ship on automatic.

Gordak shook his head. "That will not be necessary. Just give me your gun."

The pilot looked at him. Hell, he thought. There's no telling what he might do down there. But Gordak was his employer. Besides, it was Gordak's weapon, not his. And jobs were scarce. He remembered a week on Mars when he had not eaten enough to keep the desert chill out of his bones.

He gave the p.g. gun to Gordak.

The little man turned on his twisted legs and stalked down the passageway. For a time, Carstairs heard his steps grow fainter, heard them descending the ramp. Then, silence.

He did not know how long he sat there, waiting. But presently a little whimpering sound reached his ears. He jumped out of his chair. Was that the voice of Snow? Silence.

Came the whimper again. Lord, he was jumpy. He must not let his imagination run away with him.

Carstairs heard the angry grinding of metal on metal, then a loud slam. Gordak had bolted the 'low-decks door.

The circus-master's steps stamped heavily up the ramp. In order to go to his own quarters, he would have to pass through the pilot chamber. Tense—yet he knew not why—Carstairs waited.

Gordak appeared in the doorway, leading Snow by one slim white arm. Carstairs stepped forward, muttering under his breath. He reached out.

"Stop, Mr. Carstairs. I warn you, stop." Gordak levelled the gun at him, steadily. "Now back up. Sit down in your seat, please."

Numbly, Carstairs retreated and sat down heavily. Snow looked at him again, mutely. This time she did not like what she saw, for she turned her head and cried softly.

"Snow—" Carstairs began, but Gordak waved him to silence with his gun. Leading the girl behind him, he passed through the pilot chamber and into

his own quarters. He closed and bolted the door behind him.

Carstairs sat there dumbly. Gordak wouldn't dare—

He heard an angry battering from 'low-decks, the clash of metal pounding stridently against metal. Then a dull thud. The heavy tread of footsteps up the ramp.

THE HUGE bulk of Polyphemus entered the pilot chamber. Behind him crawled B'jak. The great single eye of the giant stared at Carstairs for a moment, then B'jak clacked something. Polyphemus passed through the control room.

Carstairs heard a great crashing sound, repeatedly, like the blows of some mighty sledge. He could picture the huge fist smashing against Gordak's door. Crashing no more—

He heard an oath from Gordak, heard the blast of the p.g. gun and a cry from Snow. He stood bolt upright and ran for the passage to Gordak's quarters.

A mighty arm thrust him aside. He fell back hard against the wall.

Polyphemus plunged back through the pilot chamber, a kicking and clawing Gordak under one arm. The other arm, the one that had hurled Carstairs away, hung limp and bloody where the blast from Gordak's gun had ripped into it. Down the ramp the giant disappeared.

"Mr. Carstairs!" Gordak cried. "Help me. Another gun in the chest—"

Carstairs charged into Gordak's quarters. He couldn't let the Tritoni-

an take a human like this, even if it were Gordak. He couldn't—

He opened the chest in Gordak's quarters and searched about for the gun. He found it.

B'jak touched his leg. "Why not, astrogator?"

Carstairs pushed B'jak away, turned to descend the ramp. He saw Snow sitting on a chair, watching him, a tear in each eye, a crimson welt on the side of her face. Mutely, her eyes implored. She stared in that uncanny way of hers, *reading* Carstairs it seemed. Then she relaxed.

Slowly, he dropped the gun. He heard screams dimly from somewhere 'low-decks. He stood still, hardly breathing. He remembered B'jak's words again, "Why not, astrogator?"

Later, much later, he jettisoned Gordak's body in space, watched it puff incredibly fast and float towards the moon. These space accidents were regrettable.

* * *

"Well," said the tourist, after a long silence, "so that's what really happened. That's the story of Gordak and the Snow-maid."

"That's the story," the spaceman nodded, finishing his ptah. He got up to go.

"But wait," the tourist insisted. "What happened to Snow?"

A woman walked over to the table. She took the spaceman's hand in hers and smiled up at him lovingly from under the mass of her billowy silver hair.

"She got married," Carstairs said, kissing his wife on the forehead.

THE END

CRUSTACEAN PIGEONS!



By MAX LONG



THE HOMING instinct in pigeons and other birds as well as insects is a familiar phenomenon not very well explained save in the latter case when it is realized that insects possess rudimentary—and in some case—highly developed parodies of radar equipment. Added to this homing mystery must be the crayfish!

The latter case when it is realized that experimenting in the warm waters off the coast of Bermuda, scientists have learned that lobsters exhibit definite homing capabilities. Tagged and marked lobsters were taken from their given beds and deposited as much as five miles away. Within a short time the same lobsters were picked up. Many of the lobsters were dropped into the enormous depths of fifteen hundred feet of water. In spite of these obstacles, they managed to make their way to their feeding beds. Tides and shifting water currents apparently did not

influence them.

So far no explanation is forthcoming. What the mechanism may be in such primitive creatures whose nervous system is so poorly organized compared with birds, is unknown. The possibility of radar of course is ruled out at once since electromagnetic waves are grounded or eliminated by water. Super-sonic effects also seem to be ruled out because the energy necessary couldn't be created by a lobster. This leaves some sort of mental vibration, but so far believing that mental vibrations are essentially electrical in nature, we can't permit them.

Knowing that this faculty is available to one creature of the sea, it will be interesting to see if any others possess it. That it is probable is borne out by the fact that fish travel in groups or schools. Perhaps part of this is due to something similar to the homing instinct.

TUNING FORKS



By JUNE LURIE



THE IDEA of an antenna being compared with a tuning fork or a piano wire is not far fetched at all. In fact, with respect to electricity, it behaves in the same way. Thus, all those little antennas you see perched on the houses of people with television sets are really electrical "tuning forks" so to speak. A blow doesn't set them vibrating, but a radio wave does.

It has been found that when a piece of wire is either a halfwave length, a quarter wavelength, or some multiple thereof, in length, that wire can have strong electric currents excited in it by radio waves. Such a wire is said to be resonant and is commonly called an antenna.

Television waves are around four to eight feet long—a half wave length. They are thus resonant and sensitive to the radio waves striking them. Consequently, they can feed a strong signal to the TV set. Now this business of resonant or tuned wires holds for all kinds of alternating current from radio waves and radar waves down to audio waves and the like.

It even holds for sixty cycle power lines—and therein lies a story! There are a number of reasons why electric power lines can't be more than three hundred miles or so in length and most are not more than one hundred and fifty. One is the fact that there is a resistive power loss in the wires. This is easy to understand for the power-house has to pump that much harder to

push the "juice" through the wires.

The other reason is rather startling. Power lines at such great lengths become as we say "resonant" just like radio antenna, resonant or tuned to their own exciting frequency—sixty cycles. As a consequence, the line can build up tremendous currents and voltages which can destroy—simply because of this tuning effect. Therefore, the lines must be prevented from being resonant by not being made too long.

Just as a child's heavy swing may be sent high into the air with the touch of a finger, so may a transmission line be destroyed by its own resonance. The phenomenon of resonance as exhibited in glasses shattered by certain musical notes, bridges, destroyed by symmetrically marching soldiers, and other examples—machines shaking themselves to pieces through vibration—is applicable to electric power lines. That is one reason why there can be no direct truly long distance power line more than a few hundred miles long.

It is possible by the way—a thought for a possible weapon—to shatter almost any rigid structure, by finding its natural frequency and then applying a small force of the frequency to it. Soon the structure will vibrate sympathetically, build up large displacements and then shatter itself...





Dimpo, holding the tiny knife, crept closer and closer to the giant men of Pluto

The WAY of a WEEB

By H. B. Hickey



It took a frightened little creature from Jupiter to teach these Earthmen a new twist to the adage: Death makes cowards of us all

A CROSS the fringes of planetary space the ship of the line *Virtus* flung itself with comet speed and a comet tail of atomic flame from undamped motors. And huddled against a bulkhead sat Dimpo the Weeb, his three foot pipestem body shaken by sobs, his long ears droop-

ing dismally over his thin cheeks, his huge, soulful brown eyes gushing oily blue tears.

Ensign Fuller, passing through, saw him and heard him and screwed up his face in contempt.

"What're you crying about now, Weeb?" Fuller demanded.

"I'm afraid," Dimpo wailed in his high, thin voice.

"Afraid? Of what?"

"I don't know. Just afraid."

"There is nothing to be afraid of,"

Fuller told him. "You are on the newest and finest type of ship in the Earth Fleet. There is not the slightest chance of our being overtaken or attacked by a ship of Pluto. You know that much, don't you?"

"Yes."

"Yes, sir, when addressing an officer of the Earth Fleet. You're not talking to one of those scraggy prospectors."

"Yes sir," Dimpo said dutifully.

"Dimpo—" Fuller paused, his porcine features set in a smirk. "It is Dimpo, isn't it? Tell me, what walks like a man but has the soul of a worm?"

"A Weeb, sir." Dimpo's eyes were downcast. In their three days out he had learned the routine.

"What is it that can swim but is afraid of water, that would rather eat its dead fellows than go out and hunt?"

"A Weeb, sir."

"In other words, Dimpo, what is the lowest thing in all Creation?"

"A Weeb, sir."

"Except for a spit and polish wonder fresh out of Mars Flight School," a new voice said. "Nothing is lower than that."

Fuller whirled, his skin blotching with anger. It was Crag, one of the prospectors they'd hauled off Jupiter v.

For an instant Fuller thought of swinging on Crag. But the graying, stoop-shouldered man watched him easily, gnarled hands that had swung a pick from the Asteroids past Saturn balled into hard fists.

"A Weeb," Fuller grated. "A Weeb and five crumbly rock knockers. And

we had to swing twenty million miles off course for that!"

"If we'd known the company we'd be in we'd have stayed there," Crag said.

This time Fuller was definitely going to swing on him. The burly ensign bulled forward and Crag set himself, an expectantly pleasurable grin on his face. He dropped the grin when beyond Fuller's shoulder the captain appeared.

DIMPO WAS trying very hard not to cry. He couldn't help being afraid, any more than any other Weeb could help it. And now, with the captain's hard eyes on him, Dimpo shrank back and sobbed harder.

"I've had enough of this," Captain Mackey snapped. "Nothing but trouble ever since you fellows and that jonah came aboard!"

The captain's nerves were on edge as it was. Caught too far out in space by the sneak attack from Pluto, he was racing to beat a probable blockade. Stopping to pick up the five prospectors hadn't been in his plans at all.

His eyes flickered to a porthole. "I've got a good mind to— He's a stowaway anyhow. He'd never got on board in the first place, if we'd known about him."

Glaring at Dimpo, he shouted, "What's he crying about?"

"He's afraid," Crag said.

"He ought to be. We'll be lucky to see Earth, with a Weeb aboard."

"Hogwash," Crag said calmly. "We got him from Deimos to Jupiter v without a crackup."

Mackey shuddered. "Ugh. How you can stand a thing like that is beyond me."

He pushed past Crag and marched toward the control room, Fuller falling into step behind him.

The prospector shook his head.

"See, Dimpo?"

"I'm sorry," Dimpo said. "You should have left me on Deimos, with the rest of the Weebs. I try to be brave, like a human, but I just can't."

"It's your glands," Crag said. "You can't help being the way you are."

"I thought I'd learn, but I guess I never will. You should have left me on Deimos."

Which was exactly what Crag was thinking. What had ever possessed him and his companions to take off from the moon of Mars with a Weeb, he didn't know now. They'd been, he recalled, a little drunk at the time. It had seemed funny, when Dimpo begged to go, to take him along.

"A human is brave," Dimpo said, repeating his catechism. "A human is never afraid." He turned his immense eyes on Crag. "You're not afraid, are you?"

"What's there to be afraid of?" Crag demanded irritably.

The ship swung over into a sudden steep dive that almost tore his guts out.

ON THE DARK screen the points of light grew larger, one by one, until there were six of them in a neat pattern. Peering over the radarman's shoulder, Mackey said, "Bracket one for data."

Five of the light spots vanished, the remaining one growing large and bright.

"Thirty thousand tons, about our own weight," the radarman said. "Speed, five Mach absolute, one Mach relative. Vector—"

"I can see the vector," Mackey said. He thought aloud, "Maybe we ought to take them on. No, I think not."

To the pilot he said, "Two degrees left. We'll cut back and outrun them, all except the last, maybe."

Behind him, huddled among the

five prospectors, Dimpo heard his last words.

"They're going to get us," Dimpo sobbed. "I know they will."

Mackey whirled. "Get that damn jinx out of here!" he shouted.

"See, Dimpo?" Crag said. He led Dimpo from the control room and sat down beside him on a pile of gear.

"They'll get us," Dimpo bleated mournfully, the tears coursing down his cheeks. "I'm afraid, Crag."

Disgusted with Dimpo as he was, Crag could not help feeling sorry for the creature. Weeb or not, Dimpo had made a fairly pleasant pet and companion. He had done his best to make himself useful, even bringing in a few tiny animals for food.

"Look," Crag said kindly. "Look, Dimpo. They can't get us. Really they can't."

"Honest?"

"Sure. The only ships Pluto's got that could catch us are too small to hurt us. And the big ones are a little too slow." He paused, wanting to make this clear. "You see, Dimpo, it's on account of the high density on Pluto. The big ships have a poor mass-thrust ratio when they're operating near a large planet."

"I don't understand things like that," Dimpo wailed. "I only know how I feel."

"Well, take my word for it." Then, to change the subject, "Say, how'd you ever sneak up on those little Jupe cats so you could kill them? I thought those things could hear a pin drop a mile away."

Dimpo stopped crying. His thin chest swelled with pride. "I sneaked up. Weebs are good at sneaking up. We can make ourselves light."

That much was true, Crag knew. He had seen Dimpo almost float above the ground on a low density planetoid.

"I don't understand things like

that," he said, evening the score deliberately.

"I sneaked up," Dimpo continued, beginning to dramatize. He brought out a tiny knife with a half-inch blade. "Then I stuck them!"

Staring up at Crag with a gleeful grin, he said, "That was good, wasn't it?"

"You bet." The Jupecats ran to four inches in length and had no claws, but why make Dimpo feel bad?

Then Ensign Fuller had to come along again and glower at the Weeb. The tears came once more, with renewed force.

"LOOK," Crag said to the captain. "I know how you feel about Weeb. But we learned this much living with Dimpo: a Weeb's got intuition. If Dimpo feels this bad, something's going to happen."

Beside him, Morris, another prospector, said, "No fooling, Captain."

They had left Dimpo in the care of the other three, for which Mackey was thankful. He was no more superstitious than any other spaceman, but no less.

"Those Pluto ships are acting funny, and that's a fact," he admitted.

In the last half hour the dark ships of Pluto had grown slightly larger on the screen, but not much. They were definitely not trying too hard to close for battle. And that fact, among others, was making Mackey suspicious.

Pluto had less ships of the first line than Earth. Pluto's ships were slower and no better armed. Then why had Pluto declared war suddenly, not even trying to take advantage of a sneak attack?

It didn't make sense, not to a man like Mackey, who knew how important even a five hundred mile an hour advantage could be.

"Captain!" the radarman called.

"Those ships are carrying some kind of shields!"

Mackey looked at the screen, saw that only two ships remained, and that those had grown larger. He rubbed his jaw.

"We're just about in range. Give them a blast."

Deep within the *Virtus* there was the whine of a roton. A long finger of light flicked out at the closer dark ship and fell short by a thousand miles.

In reply there came a beam from the dark ship, also falling short. But there was now a change on the screen. The ships of Pluto were holding back.

Mackey rubbed his jaw again. "They're steering clear. So it isn't an anti-neutron shield, otherwise they wouldn't be scared of our beam."

He had a difficult decision to make. With Jupiter so close now his mass-thrust advantage had grown. At the very least he could figure a five minute lapse before the other Plutonian ships caught up. And he wanted information.

"Maneuver Three," he decided. "Let's give them a whirl."

IN THE CLASSIC pattern of One-against-Two the three ships wove flaming paths through space, the Two trying to box the One and the One eluding them by sheer swiftness. Close to his receiver the communications man huddled, hoping to intercept a command that might reveal a coming maneuver.

"Anything?" Mackey demanded.

"Nothing," the communications officer grunted. He held up a hand and said, "Wait! They're calling us!"

"What do they want?"

"Surrender or die," the c.o. replied laconically.

Everybody laughed, breaking the tension that had built up. "Reply?" the c.o. asked.

"No," Mackey told him. "They might have a lady on board. And I couldn't think of a nice way to word it."

Amid more laughter the radarman said, "Two man scout ship out!"

They watched the tiny ship break away from its darker mother ship and hurl itself toward the *Virtus*. Too small to carry heavy weapons, the scout ship was also small enough to outspeed the *Virtus*. And if it got close enough it could do sufficient damage to cripple the Earth ship.

Watching the tiny thing come on, Mackey also saw a larger pattern evolving. He sucked in a jubilant breath.

"Get set for a one degree swing left!" he barked. He watched the scout ship bore in closer.

"Nail-it!"

The beam flicked out again, like a snake's tongue darting. It touched the scout ship briefly. For an instant a miniature sun blazed, and then was gone, and with it the tiny ship.

"Now!" Mackey yelled.

The *Virtus* heeled over, running wide open now with Mackey babbling almost incoherently to himself. He was going to catch the two Plutonians in line with each other. He was going to execute the beautiful and ancient naval maneuver of crossing the T!

"Now!" he crooned.

They witnessed the awesome spectacle of a great ship atomizing, all its fissionables going at once. At a distance of millions of miles it would appear as a new star being born. Up close there was nothing but light. Light so incredibly bright that when it was gone the blackness of space was more intense than ever.

"MY GOD," said Ensign Fuller, shocked for once into humility by what he had seen.

For the rest there was a momentary silence. No shouting, no back slapping, no jubilation. For an instant they had looked into the furnace of Creation, all except Mackey for the first time. They felt hollow inside.

And then Dimpo was with them again, racing ahead of his three guardians to throw himself at Crag.

"Oh my," he wept frantically. "Oh my oh my oh my." Teeth chattering in a paroxysm of terror, he flung his arms around the stooped prospector and clung tight.

"Sure, sure," Crag said soothingly. He patted Dimpo's furry head.

"What I saw," Dimpo said. He had been looking through a porthole. "Oh, what I saw!"

"I know, I know."

And over Dimpo's wailing the radarman said, "Captain! Something funny. That lone baby is trying to stick to us, not even waiting for its friends."

Mackey looked and it was true. The remaining Plutonian ship was riding parallel, instead of running or falling away as it should have.

"We'll knock them off too," Ensign Fuller exulted, and some of the younger officers joined him, their adrenals pumping again in the hope of a two-strike.

Mackey disregarded them, his thin, lined face set in the memory of other battles, the knowledge lying heavy within him that no two battles ever had the same pattern. He had gambled his ship once in the hope of learning something.

But he had learned nothing. So far there was no ace up Pluto's sleeve. And that didn't make sense. Nobody ever declared war in the certainty of losing.

"Aren't they doing *anything*?" he fretted.

The radarman twirled his knobs, trying for more detail. "Something,"

he said. "They just kicked off another one."

"Scout?"

"No sir. Smaller. Too small for even a one man job."

Mackey watched the thing grow on the screen from a pinpoint to an object the size of an orange. Definitely too small for even a one man job, he thought. And not moving fast enough, although faster than his own ship could travel.

"Give it a burst," he ordered.

His gunners were good. They hit it perfectly, the computers recording the object enveloped by the beam.

They found themselves waiting for the flash. Only this time there was no flash. The object was now the size of a very large orange.

Mackey cursed. "Something wrong with the detonator. Check it!"

"It checks," he was told.

They hit it again with the beam, and somehow Mackey and all of them knew that it was no good even before the beam touched it. Nothing was going to happen, and nothing did.

There was nothing to do but run. The thing was only thirty feet or so in length, trailing white flame that twisted into corkscrew shapes as it twisted and turned and dodged, mimicking every move of the *Virtus* like a distant shadow.

Except that now it was no longer so distant. A hundred miles, maybe, and even that being cut down slowly but surely.

With the reflexes born of long experience and a mind devoted to a single business, Mackey had headed for Jupiter. In open space you were a sitting duck, but any planet might afford protection. And Jupiter was a big planet.

They hopped the peaks and knifed down the valleys, too fast for safety and flying blind. And behind them

came the tiny rocket, and now it was fifty miles away.

And somehow they knew that when it hit them they were finished.

They couldn't dodge it and they couldn't outrun it. And as they went around another peak they knew it was the last one, for the thing behind them was only a mile away and coming on with the dread certainty of doom...

NOW THEY lay in a deep crevasse, the ship resting on its tail. And above them through the methane and ammonia fog the ships of Pluto flitted, probing, seeking, poking fingers of light through the murk.

"What happened?" someone asked.

They had seen the flash behind them and sensed the explosion that must have caused it, even seeming to feel the concussion of such a blast, although it was impossible for them to have actually felt it.

"It hit the mountain," Mackey said.

And that was it. It had hit the mountain and he had reacted instantly, seizing the chance to drop into this great glacial crack in the planet's surface.

Someone wondered-aloud: "What in blazes was it?"

Mackey knew, but the knowledge was bitter as gall in him, for there was not a single thing he could do with it. His face was wan and gray with the weight of the knowledge.

"They dragged out the old proximity fuse," he said. "They tuned it to the metal of our hull and stuck an old fashioned molecular explosive warhead on it and used a molecular motor for the rocket."

He cursed savagely, awkwardly, a man not given much to cursing. "Not a damn fissionable on it, and that's why the beam couldn't blow it!"

"But they've got the same metal on

their ships as we have," someone else protested.

"Sure, except for the higher density. And that's what the shields are for."

Through the portholes they could see shifting fog, and now and then a vague light flickering. And sometimes there would be the darker movements that were shadows of the ships of Pluto.

"They'll go away soon," Ensign Fuller hoped aloud. "They must think that thing got us."

Mackey might have let him hope on, but honesty won out. "If they'd got us they'd pick up radiation from the crash. And as long as they're not getting it they know we're in one piece."

"We could open a damper," Fuller suggested brightly.

"Too concentrated. Crash radiation would be scattered." The captain shook his head. "You might as well have it straight, men. We're alive, but that's about all. That mountain had enough iron in it to attract the rocket, and there's enough iron in the walls behind the ice in the crevasse we're in to keep them from picking us out of the landscape."

In an agony of frustrated anger he banged his fist into his palm.

"If we had some scouts of our own we might try a couple of decoys. Maybe one of them might get through." That was the c.o., already down to wishing for what might have been. "They can't have many of those proximity deals."

"No," Mackey agreed. "Or they would have used one sooner."

Again he banged his fist. "But enough, I'll bet, to take care of our main fleet when it heads up here!"

The communications officer blinked. "I hadn't thought of that. We've got to get a warning through!"

He reached for his microphone and

Mackey batted his hand away.

"One peep out of that and we're dead!" the captain snapped. "Why do you think I ordered all generators off? One emanation of any kind and they'll nail us."

He shrugged. "No, here we are and here we'll sit."

"Not for long," Crag said. "Not after the batteries run out." They all looked at him as though they'd never seen him before.

But the other prospectors knew what he meant. Their heads bobbed in silent agreement, their faces showing no fear but a certain resignation.

"That fog is methane and ammonia," Crag reminded them. "Not water vapor. It's a couple of hundred degrees below out there."

IT WAS NOT yet cold inside the ship, but that would come in time. Already the men were getting up to walk past the thermocouple for a quick look.

That was the only activity. Except for Dimpo the rest was silence.

Dimpo wailed unceasingly, despite Crag's best efforts to calm him.

"I'll die," he wept. "I'm going to die. We'll all be frozen—"

"Shut him up!" someone shouted.

"There, there," Crag soothed. Too late for anything but kindness now. "We'll be all right, Dimpo."

"If it weren't for that damn Weeb we might've been," the radarman said. His eyes lingered on an escape hatch.

"They're going to throw me out!" Dimpo screamed. His little hands clutched at Crag.

"Don't worry," Crag told him. "This is one time the doors and windows stay shut."

It was a gruesome joke, but at least he could still joke. Dimpo's great eyes regarded him with wonder.

"You're not afraid; are you?" Dim-

po. asked. "I'm afraid, Crag. I'll die here and I'll never get to see Earth and all the brave people."

"You won't miss much," Crag grunted.

"Both of you shut up!" That was Ensign Fuller, the pink freshness gone from his cheeks.

Dimpo lapsed into silence, the tears rolling down his face as he huddled close to Crag. And the prospector put his arm around the Weeb and held him gently, as he might have held a son.

"Don't worry," Crag whispered. "Captain Mackey'll get us out of this. That's how he got all those medals on his chest, getting out of tough spots."

Dimpo looked at the medals and was distracted for a moment. So many colors and so much glitter denoted an unbelievable amount of courage.

And yet—Captain Mackey seemed perturbed. He was pacing up and back, peering through the portholes, rubbing his hands over his face. Once he stopped and looked out a long time.

When he turned back he seemed to have reached a decision.

"Gentlemen," he said, "I think we'd better take off."

"But they're still there!" someone protested.

"More than ever," Mackey agreed. He pointed at a porthole and said, "Have a look."

Peering out, they could see the faint shadows now and then. It seemed that several of them moved very slowly.

"Looks like they're landing scouts," Mackey said. "They can't spot us from above, so the obvious answer is to send out surface crews."

IN REALITY he was offering them a choice, a choice of dying one way or another. If they tried to take off they would certainly be blasted,

either by an enemy beam or by another proximity rocket.

And if they sat tight they were almost as certain to be discovered by a searching party.

It was a knowledge that sucked their bellies in tight. Maybe at that very moment there were dim figures on the edges of the crevasse. And in another moment there might be an eruption of flame and a terrible roar, and the end of them all.

"A decision like this should be put to a vote," Mackey said. "As for myself, I'd rather go out with all guns firing. Think about it for a minute."

They thought about it, all of them except Dimpo. The Weeb was too terrified to think.

"They might miss us," the radarman said. "Maybe if we just sit it out..."

"If we only had some way of knowing how close they were," the c.o. fretted. "But to sit here like this—"

Mackey nodded. "There's a way, all right. If one or more of us were to get up out of the crevasse. Then, if we remain undetected, we sit tight. If we're on the verge of being found, well, we'd have enough warning so we could get aloft.

"Under the circumstances, however," Mackey continued, "I can't very well order anyone to do it."

And they knew well enough why he wouldn't give such an order. To their enemy the intense cold was a daily hazard, and so was the greater gravity. But for an Earthman to climb a wall of ice, weighing what he would weigh on Jupiter, and knowing that a pinhole in his space suit would be sure death...

Dimpo, as well as they, understood the situation. Yet he was certain that volunteers would come forward. Humans were brave, humans were fearless. Especially military men, with medals.

But the silence grew long and uncomfortable. And in the end it was Crag who broke it.

"Hell," he grunted. "I'll do it. I'm used to operating in a space suit, crawling around god-forsaken terrain like this. And at least I know how to handle an ice-axe and a rope, which you military fellows probably don't."

Suddenly it seemed to Dimpo that his heart had stopped beating. He felt no sensations at all, only a queer numbness. Crag was gone from his side, was getting into his space suit with the axe and the coil of rope at his feet.

In another minute Crag would be gone. And he, Dimpo, would be left alone in this ship with all these men staring at him and hating him. As though he were a—a Weeb.

All alone, he would be, with the only human who might protect him far on the outside.

"I want to go too," Dimpo said.

Strange, he hadn't wanted to say it. He hadn't willed his tongue to move. But there the words were; he could hear them and it was his own voice all right.

"I want to go. Take me along, Crag. Take me with you," he was crying.

He had his arms around Crag's middle, preventing the man from getting the space suit zippered up all the way. Very gently Crag tried to pry Dimpo loose.

"You better stay here," Crag said. "You'll be safer."

"Get away from him, you damn Weeb!" Clutching hands seized him, but he only held on tighter.

"Let me go with you," Dimpo begged. "I'll help, honest I will!" He knew he couldn't stay here, not with the eyes staring at him full of hate and blaming him for everything.

"I'll help. I will! I'll make myself light and help you and I won't get in your way or anything. Crag! Crag!"

Crag STOPPED trying to unclench his fingers, stopped pushing him away. The prospector's eyebrows were lifted as the gist of what Dimpo was saying struck him. He waved away the men who were trying so roughly to pull the Weeb from him.

"Wait a minute," Crag said. "Wait a minute."

It was going to be a climb up that wall of ice. It was going to be the worst climb he'd ever had, and it might just be the beginning. His weight would be enormous, but his strength would not increase with it.

On the other hand, Dimpo, in proportion to his own weight, would have the strength of a giant!

"Dimpo," he said, taking the tiny face between his rough hands. "Listen, Dimpo, do you *really* want to go?"

"Really, - really," Dimpo assured him, the oily blue tears flowing.

"You won't get in my way? You'll watch my signals and do everything I tell you to do?"

"I promise," Dimpo said. He had heard prospectors strike bargains and he knew just how to word this. His great, moist eyes looked into Crag's and he said, "I give you my solemn oath as a—a Weeb."

"O.K. Go get your suit."

With a glad little squeak Dimpo ran for his small pile of gear. On the long haul from the Asteroids Crag had cut down an old suit of his own so that it fit Dimpo, and of all Dimpo's possessions that was prized most highly.

It fit around his thin body loosely, complete as any human's space suit. The chemical heat packs, the insulation, even the small two-way communications set; everything was there. The helmet was too big; that couldn't be cut down; but he'd never minded that.

Then Crag's hand made the signal for "Let's go," and they were moving along together.

Crag took a last look behind him at his friends and they jerked their thumbs upward. Hand in hand he and Dimpo went through the first lock. There was a quick hiss of escaping air and the lock was slammed behind them.

Another lock and then one more and then the last one.

They were outside the ship, standing off a tail fin in the shifting fog. The ship towered alongside them, and on the other side was the faintly gleaming ice.

Crag shuffled his feet, saving himself the effort of lifting them. Behind him now, Dimpo did the same. The Weeb felt the pull of the planet, somehow greater than it had been inside the ship, and he took a deep breath and rid himself of the extra weight.

There was a set pattern to this kind of climbing and they fell into it. Crag inched upward and Dimpo stayed on his heels.

For Dimpo it was easier. He needed only a tiny handhold.

Time and again Crag's foot slipped, and each time Dimpo got a hand up to steady it. There was a glow of pride inside him. He was helping! He was really helping!

The fog was an eerie thing to Dimpo. Accustomed to the crystal clearness of Deimos days and nights and the airless clarity of the Asteroids, he felt as a man might feel swimming in murky waters. The fog swirled and shifted gently, and sometimes he could see a short distance, sometimes only Crag's bulky form above him.

He saw Crag's hand move now, in a desperate signal. Stuck, the signal

said, and it was a feeble signal. Crag was tired.

But he couldn't be! They *couldn't* back down! They had to keep moving upward. To try to back down was sure death.

Dimpo's hand tapped against Crag's foot: Keep going. And Crag's signal came back: Can't.

There was only one thing for Dimpo to do. Breathing deeply, he made himself lighter yet. A gentle push and he moved upward alongside Crag. He got his arm under Crag's and lifted.

It would either work, or it wouldn't. Either he'd be able to transfer some of his own weightlessness to Crag, or the resulting tug was going to pull them both loose.

Dimpo lifted. There was no tug. Crag moved upward again.

THEY LAY on the icy surface, Crag letting some of his strength flow back into his muscles, Dimpo exhausted by the effort of will he had made. Overhead, shadows flitted.

They had to move, they had to get going. Crag got up slowly, uncoiling the long rope. He fastened it clumsily but surely to a projection.

For an instant Dimpo hoped they were going down. He didn't want to stay up here in this fog, not with those dark shapes above, not with the possibility that at any moment other dark shapes might appear closer.

But Crag wasn't going down. Motioning Dimpo to stay close to him, he started away from the edge of the chasm, his feet barely lifting from the surface so as to conserve strength.

They shuffled along, moving in a wide arc. They edged around a hump, they inched their way through weirdly shaped columns of ice that gleamed faintly green in the fog.

There was a solid lump of ice in

Dimpo's stomach now. The crevasse was somewhere behind them now, but he didn't know where. If anything happened to Crag he'd never be able to find it again.

But suddenly Crag was no longer there! Dimpo's body shook with panic. Like the stupid Weeb he was he'd let his mind wander, he'd lost Crag!

He was all alone!

And then, just in time to save his sanity, the fog shifted. Near a great chunk of ice he saw Crag's figure again. He ran, his little heart beating wildly, his lips moving in a vow never to let Crag out of his sight again.

He stopped running. His heart stopped beating. Terror froze him in his tracks, then let him move only enough to fade into the shadow of an icy pillar.

The fog had shifted again, and off to his right lay the bulk of a scout ship!

And moving away from it and toward Crag were two smaller dark shapes!

Like wraiths, the men of Pluto. Tall, immensely tall, and thin as boards, even in their space suits. They were used to such terrain; they moved surely; they moved right for the place where Crag was!

Without thinking, Dimpo switched on his two-way.

"Crag!" he screamed. And then just a long scream of terror.

TOO LATE he realized what he had done. The two shapes were stopped. Now they were moving again, but now they were moving purposefully.

He'd given himself away. He'd given Crag away, he'd given all of them away!

They hadn't known there was anyone around. They'd just been moving along, and they might just as well have passed within fifty feet of Crag

or himself and never known.

But now they knew. Coming from off to the right, they couldn't see Crag yet. But in another minute or so they would.

The prospector was trying to work his way into the deeper shadows of some nearby icy humps. But he was moving at the speed of a snail. He'd never make it! They were getting too close!

They'd get Crag! They'd kill him! And then he'd be alone, and he didn't know how to get back to the ship!

Maybe there wouldn't even be a ship. Now they knew that it was close by. As soon as they'd killed Crag they'd have all those dark ships down here.

What had he done?

The only human who'd ever had a kind word for him, the only human who would protect him, and he'd cost Crag his life!

THEY WERE moving faster, now, those two tall shapes, faster than Crag could move. Another minute, a matter of seconds, and those terrible guns would eat the space suit off Crag, eat the skin and the flesh from him!

Dimpo couldn't breathe. But he caught a deep breath, sucked it into his little lungs.

He could hear Crag stumbling, he could hear the two tall ones, their footsteps rapid now.

But they couldn't hear Dimpo. Almost floating, with only enough weight to give him traction, he made no sound at all. To Dimpo the Weeb, his knife with its half-inch blade in his hand, this was old stuff.

There they were now, right before him, their awful guns rigid in their hands. Their eyes were forward, intent on what was before them.

Tiny Jupe cats hadn't heard Dimpo. Neither did these towering men of

Pluto.

There they were, one ahead slightly and one a few feet back to the left.

Now!

A SMALL cut, only a few inches in length. That was all. No need to pause. Faster than a shot the intense cold had done the work. It was inside the suit. The towering figure was still, frozen forever, a statue of ice.

Once more. *Slash*. Another statue.

It was easy, so easy. And there was Crag, still desperately stumbling.

Dimpo floated around him, waving. For a moment he thought Crag was going to fall. He jumped forward and caught the prospector's arms and helped him regain his balance.

Quickly he tapped the message: Are you all right?

Crag nodded. That was good. He'd been terribly afraid. What if Crag were not all right? Then what would he have done?

But Crag was looking back, pointing at the frozen figures behind them and then pointing at Dimpo. You? came the taps.

Dimpo bobbed his helmet, waved the tiny knife to show how he had done it. He was happy, very happy, for the pressure of Crag's hand on his arm told him he had done well.

Now what? Dimpo's taps went, and Crag's reply was: Back. And that was good, too, because more than anything Dimpo wanted to get back to the ship, to get out of this awful fog.

And Crag was wonderful. With the infallible sense of direction that had taken him across the barrens of Mars and the shifting sands of Deimos and a hundred other trackless places, he was picking his way back.

Somehow Crag knew. Somehow there were signs that had registered in his brain, without him even thinking about them.

Here were the icy mounds he had stumbled across in his flight, here were pillars of ice, here a jagged, up-ended cube gleaming faintly.

Overhead a ship moved now and then, making a shadow. But not more ships than there had been before. They had received no message.

And there at last the dark hull of the scout ship. It would be some time before it was missed. There would not be two patrols close together.

Not much further now, Dimpo thought happily. Just a little way and they would be at the crevasse. And then a slide down the long rope and they would be inside the ship again.

But Crag was stopping. He was looking back, at the scout ship.

Dimpo's heart contracted in the clutch of fear. More scouts? It was a two-man, but maybe there'd been a third one squeezed in. He was afraid to turn and look.

But Crag was turning him about. What was he doing? He was walking toward the small ship! He was waving Dimpo to come along!

Then the ship was directly before them and Crag was looking it over. Why, Dimpo couldn't see. It was just like the big ones, except in size. The same materials, even, except that it didn't have one of those shields around it.

Now Crag was tapping the ship, making strange motions with his hands. What did he want? Try to lift the ship?

It was impossible. With the first thrust of his thin shoulders Dimpo knew he could never budge this thing. A hundred Weeb might have lifted it, but not one.

But that wasn't what Crag had wanted. He was going to tap it out. First he was pointing up along the side of the ship to an escape hatch, now he was pointing to himself, and

now tapping: Lift me.

So that was it! The hatch was too high for him to reach, but maybe with Dimpo giving him a boost he could make it.

Dimpo bent low, grabbed Crag's ankles. With all the strength he could muster he pushed upward, Crag helping as much as he could by pulling with his hands.

Somehow he made it. He had the hatch open and was signalling Dimpo to come up. That was the easy part of it. A leap and he was up there, and Crag had a hand outstretched to help him in.

And finally they were inside the main compartment and it was just like the other rockets Dimpo had seen. Crag had his suit off and was checking over the controls.

And now Dimpo knew what Crag was going to do. He was going to take off in this ship! Before anyone knew what was happening he would have them both out of here! They'd be safe!

He felt the ship lift. But why so slowly? It was only up a few hundred feet and Crag was stopping it. It was tilting, moving slowly to one side. It was dropping!

It was dropping into that awful crevasse, right alongside the Virtus!

Dimpo began to weep.

"SURE," THE captain said. "It wouldn't be too difficult. No tougher than shooting a flea off a dog's ear at a hundred yards, with a bow and a crooked arrow. Standing on your head, that is."

Crag shrugged. "All right. It was just an idea. You don't like it, Dimpo and I can slide that scout back out of the ship-release port and try to make it on our own."

Mackey laughed.

"No, no, don't get me wrong. I like it. I'd like anything better than sit-

ting here, wondering if this is my last breath."

He looked at his men. "Well?"

"It's a lousy break on mass," the radarman said. "We total more than fifty times the scout. We'll have to come darn close."

"If we don't get hit before we even have a chance to try it," someone else grumbled.

"If the dog hadn't stopped—" Mackey began disgustedly. "Look here, the man and the Weeb are waiting. They could have taken off without asking us; maybe they still have time. They're entitled to a fast answer. All right now."

He raked his eyes around. "Hands!" he said. "All in favor..."

The hands went up. There was no need to count. They were all tired of sitting and waiting for it to hit them.

"Good," Mackey said.

He clapped his hands. "All right, engineers! Get those controls wired. And make sure those scout motors are absolutely balanced. When I push the button I'd better not throw a curve."

He was moving now, the gray gone from his face. Any plan was better than none, and if he died at least he'd die out in space, not in this miserable glacial crack.

They all felt better now. The engineers vanished down the hatch to the ship-release port and came back trailing their wires. The radarman hummed as he leaned over his switches. Even Ensign Fuller sang snatches of a song about rocketeers not having ears but only holes in their heads.

And suddenly Captain Mackey was shouting, "Belts, everyone! We hit it on all six!"

His hand went up. "Five-four-three-two-Hit!"

There was no sound, but Dimpo could feel the roar in his stomach.

He tried to cut his weight but it was no use. He couldn't catch his breath; it was all squeezed out of him. He couldn't even scream.

Outside the portholes there was a gray wall a thousand miles high and it unrolled like a ribbon until suddenly it was gone and there was nothing but black outside. And the radar screen was spangled with ships.

"Fire at will!" Mackey commanded, and threw the ship into a crazy spiral that gave the gunners no hope of hitting anything.

The c.o. was pouring stuff into the transmitter, praying that enough of it got through even if he himself didn't.

Too fast for them to keep track. The defense computer was calling the enemy blasts: "Miss left port, miss right tail, miss right bow, miss..."

They were all misses, some of them hundreds of miles off, some of them too close for comfort.

"Dropped one behind!" the radarman yelled. A moment later he shouted; "Lost another!" The ships of Pluto were fewer on his screen, and each one left behind was a millstone from their necks.

And then at last the only thing that counted, the thing they'd been waiting to hear.

"Here it comes!"

IT CAME from off their port side, from a thousand miles across the void, and it was a tiny thing, comparatively, a relic of bygone days.

It was a missile off the military junk heap. It was a slingshot against Goliath. And it could do to the *Virtus* what the slingshot had done to Goliath.

They watched it come on, watched it creep closer, watched its inexorable march across the screen.

"Good thing they didn't use two," Mackey said, and picked up the wires and the makeshift switch.

"She's off our bow," he said, checking the screen. "Put her on our tail."

And they wasted a precious minute cutting back so that the thing now flew directly behind them. "How far?" the captain asked.

"Hundred miles," the radarman said.

"We'll wait. Keep her steady."

They waited. They kept her steady. They watched their doom move up to seventy-five, to fifty miles, to forty miles.

"Pray," said Mackey.

He pushed a button and a red light went on. The release was open. He closed the switch.

It was like being kicked in the back by a mule. A flash of fire and the scout ship was away, flying blind.

It had to be close, it had to be awfully close. It had to miss by less than a mile, otherwise the relative mass of the *Virtus* would remain greater.

But it *was* less than a mile! It was far less!

Like an angry hornet the proximity rocket spun, its dreadful affinity now centered on the closer ship.

They watched the chase, they saw the flash. And then the sky was black and there was nothing but space between the *Virtus* and Earth.

CRAG LOLLED in his seat, a cigar clamped between his teeth, and watched the blue ball that was Earth grow larger through the porthole. Beside him Dimpo sat and trembled.

"Take it easy," Crag said.

"Maybe they won't like me," Dimpo moaned.

"With that medal on your chest? Why, you're a hero!"

Dimpo fingered the medal Captain Mackey had pinned on him. It should have made him feel brave, but it didn't. All he could think about was

the people, the way they'd stare at him.

I wish I was back on Deimos," he said. His lips began to quiver and the moisture welled up in his eyes.

"I'm afraid, Crag," he wailed.

Ensign Fuller, passing up the aisle, saw him and paused. "What's with you now?" he demanded.

"I'm afraid," Dimpo wept.

"Afraid? Of what?"

Crag shifted the cigar and glared

up at him. "Just afraid," he said. "A Weeb is always afraid. So what?"

"Nothing," Fuller said. "So nothing."

He patted Dimpo on the shoulder. "Don't worry about a thing. You'll be all right, Dimpo."

"Mr. Dimpo," Crag said.

"Mr. Dimpo," said Ensign Fuller. He was quite serious.

THE END

WHAT IS LIFE?



By RAMSEY SINCLAIR



FIFTY YEARS ago the boundless enthusiasm of physicists, chemists and biologists, led them to believe that the problems of science would eventually succumb with small struggle to their probing mechanistic ideas. What a change has been wrought in fifty years! Now, humbly the scientists look around at their vast accomplishments, and with subdued mutterings and apologetic gestures, slink into their laboratories and try to get clues—not of a mechanistic nature. They have learned something. Despite the tremendous and gigantic advances in the physical sciences, scientists realize that we still know next to nothing of the really basic things.

We can't answer questions like: "What is the nature of an electron or an atomic interior?", or, "What is life?" Yet in spite of our failure to penetrate these mysteries, we have made such progress in a mechanical way, that we're encouraged to probe deeper. The answer will come eventually.

No thinking man deludes himself any longer that he will see, for example, an explanation of the mystery of life, in terms of a mechanical electrical picture. Naturally this is the basic constitution but there are subtleties still too remote and untouched. Consider what we know of living matter and life.

All living matter consists of structures of cells down to the simplest bacterium. That the answer to the mystery of life lies in the study of the cell, is generally agreed upon. And right now this is probably the most important single research in biology. But one of the most vexing puzzles in the fact that there is no sharp line between living and non-living matter. At his nebulous border-line unquestionably clues to the problem exist.

The filterable viruses which we suspect cause polio and numerous other diseases, are nothing but proteins, aggregates of molecules in the form of huge chains. By all chemical standards they are alive—yet they are not, for though they reproduce themselves, it is more by crystalliza-

tion than by what we call reproduction. If reproduction alone is the standard for defining life, it would be necessary to say that crystals, say, of salt, are alive, because they can grow! Since this is manifestly ridiculous, there must be something escaping our notice in living matter.

The bio-physicists and the bio-chemists are probing into the nucleus of the living cell, endeavoring to analyze its fundamental nature. So far the only clue to living matter seems to come from the fact that the genes and chromosomes of the cell nucleus have some orderly arrangement. Speculating philosophically, a number of scientists suspect that it is in order and arrangement that the secret lies, but what causes this organizing orderly ability? No one knows.

There seem to be two basic universal laws, not at all connected in any way except perhaps by contrast. In the physical world, the second law of thermodynamics with its entropy and gradual "running down" of matter and energy, seems to be the rule. That is, the energy and matter in the universe seem to be coming to a common level.

The other law, which applies apparently only to living matter, is one in which organization of structure and growth is the rule! In a yet-unexplained, subtle fashion, an organization of something which we call life, is possible. In a way this second law seems to be a violation of the first rule which holds for all inorganic matter. The resolution of this conflict is the core of the solution of the problem.

It appears then, that the ultimate solution of the mystery of life lies in the hands of the student of viruses, crystals, colloids, and also in the hands of the student of the atom's interior. It is a long term problem, not to be solved now, perhaps never, but then again, perhaps, in time. The optimism and hope for its solution are high and strong.

We'll answer: "What is life...?"





The CLUB HOUSE

Where science fiction fan clubs get together.

Conducted by **ROG PHILLIPS**

THE NORWESCON is over at this writing, and the next World Science Fiction Convention will be held at New Orleans next Labor Day. It will be the first held in the south, and should have a large attendance since it will be within reasonable traveling distance of all parts of the country.

I met many old friends there and made many new ones. I will be at next year's convention. I understand Howard Browne will, too. He attended the Norwescon and was really sold on the convention!

The Portland group did a fine job. Fandom has been very lucky in having such energetic and intelligent committees for the last few conventions, and were able to make a real success of it. I hope our luck will keep up. It would be tragic if some city got it and didn't do anything to make it a success. That is the one weakness of the present setup. If the time ever comes when a city that gets the convention doesn't show signs of putting it over by a certain date, there should be an alternate city to get it. But maybe not... because then the city that did get it would be behind the eight ball with a lot of fishy eyes watching to see how they were doing. Actually each city that has gotten it so far has accepted the challenge and faced up to it, even when they discovered it was developing into a terrific amount of thankless labor.

Just as soon as I hear from the New Orleans directors of next year's convention I will announce in this department where you can send your dollar to join.

Frank Dietz sent me a letter after the convention which I'm reproducing here. It expresses the sentiments of us all.

Rog;

While the memory of seeing you among countless others of my fan friends again just two short weeks ago lingers close in the blur of my memories of the Norwescon in Portland, upon getting home now I thought I couldn't do less than write you (as one of the audience of *The Club House*) to tell you how we enjoyed having you there (as usual), though anyway you know that already; from what I saw you had as much fun as any one of us who attended.

What makes me think though, and realize how lucky we are not only to be able

to attend the conventions, but even sacrifice other things so we can attend, is the reactions of those fans I visited on my way home who didn't attend. It's the only trouble with really making people who love science fiction realize all the fun there is in a convention. Beforehand, you can only say a few hundred words in *The Club House* to urge them to join and attend; it takes a recounting afterwards of all the fun each of us had there to show them what they missed, and even then, one can't give full justice to it; undoubtedly my ideas of the most enjoyable moments differ from yours.

Next year the 9th World Science Fiction Convention will be in New Orleans, as you know, equidistant between the East and West Coasts. Which I think will give the added enjoyment of seeing more attendees from the East—it was disappointing the poor showing we had to make as attendees from the East (east of the Rockies), really disappointing as I don't think there were many over 15 of us. But we really had a swell time, more than twice worth the trip.

But then again I really liked the large turnout of fans and readers from the West—actually I believe the Norwescon set a record in having the largest attendance of local persons who were just readers till they heard of the convention in their locality.

So now our keynote, our aim during the coming year, the Nolacon in '51: join now, and be in New Orleans for the convention when it comes next Labor Day. And may *The Club House* be as successful in digging up attendees as usual!

Franklin M. Dietz Jr.
P.O. Box 696
Kings Park, N.Y.

And now to the fanzine reviews for this month. The first two are written by the editors of the fanzines themselves, and they did a better job than I could have done. They're in business for themselves. Give them a boost by subscribing to their fanzines!

CATACLYSM: edited by Bob Briney and Del Close; 561 West Western Avenue, Muskegon, Michigan; 10c each, 6/50c. Here is a nice, neatly done little poetry magazine, in a convenient pocket-sized format.

This third issue is put together a bit differently from the first two, being stapled at the left, hectographed on both sides, and having a mimeographed cover and contents-page. The editors-publishers met with difficulties in the way of gelatin and supplies, so this and the next issue are published for them by W. Paul Ganley, editor of *Fan-Fare*.

Twelve poems comprise the offerings this issue, by George Craig, Toby Duane, Isabelle E. Dinwiddie, Ed Roberts, Tom Covington, Andrew Duane, Phillip Duke, Carrie Andrews, Perry Delane, Hamilton Parker, Lee Gann, and Orma McCormick, in that order. In spite of the smaller facilities, compared with some other poetry magazines, most of the poems are very excellent and as good as any that could be found elsewhere.

As the editor says in EDITORIAL EFFUSIONS: "Herein you will read of various and sundry unusual fantasies and horrors, from Andrew Duane's grave-arisen liches to the more subtle horrors of the mind in *BEMS in the Woodwork*." With the material this fanzine has, I predict it will go far—all it needs is a lot of subscribers!

* * *
FAN-FARE: bi-monthly; 15c, 6/65c; W. Paul Ganley, 119 Ward Road, North Tonawanda, New York; Associate Editor, Robert E. Briney. This fanzine continues its policy of improvement, both in format and in general contents. The mimeography is even better than the last issue, almost flawless, and the page number increased from 20 to 22 double-margined, easily-read pages.

The lead-off spot in this issue is occupied by fan writer Eugene DeWeese, who tees off neatly with a humorous, 5000-word story entitled *THE EPIC OF COLONEL ARCHIBALD*. In it, a Sirian monkey stows away aboard an interstellar space liner, whose occupants face this undesirable turn of events courageously. Although parties are formed to catch Archibald, and a reward is offered by the captain, he manages to elude them long enough to shoot a woman full of truth serum, catch two criminals who had intended to raid the vessel, and otherwise provide nine pages of riotous amusement.

For the first time, Andy Duane is missing from *FAN-FARE*: but his brother Toby takes off in the old "Amazing" tradition with a short, short story written around the cover painting—a scene by Curtis Stewart, the artist who has done three *FAN-FARE* covers thus far.

Herman Stowell King, fan author of slightly longer standing than many of *FAN-FARE*'s writers, finishes up the issue in grandiose style with a 2500 word tale written in a style worthy of a professional, while Don Martin & Ted Blake offer more variety in the form of another short, short story, sequel to *ETERNAL PUNISHMENT* in the previous issue, and reading much the same.

Certainly not least in this issue's of-

ferings is the page of book reviews, taken care of adequately by Ed Roberts, Eugene DeWeese, and Mike Phillips (no relation to Rog). And this issue also offers a large selection of poetry, seven poems in all, by the Duanes, Phillip Duke, Laura Kinzer, Keran O'Brien, and finally, Joe Shaumburger, whose poem, illustrated by Henry Chabot, appears on the last page.

All in all, an exceptional issue, with more and better to come.

* * *
FANSCIENT: 25c; 6/\$1.00; Donald B. Day, 3435 N.E. 38th Ave., Portland 13, Ore. I've corresponded with Don occasionally for three years, and at the Norwescon I had a chance to meet him. He's a very likable fellow, over six feet tall. As an old friend in Spokane, Washington used to say, he's a swell fellow—reminds me a great deal of myself. Except that I wouldn't have the patience to put out a top quality fanzine like Don does. It's photo-offset, pocket size, with the typing reduced so that each small page has the same contents as a large size zine.

The summer issue has a scene from "Destination Moon" for the cover illo. The feature that makes *Fanscient* a must for the stf fan is its "Author, Author" section which gives a picture and the list of the works of some outstanding stf author and a brief sketch of his life. This issue tells about Anthony Boucher, who was the guest of honor at the Norwescon. I met him there, and found him unusually intelligent and gifted. He's the author of one of the greatest fantasies of all time, "Mr. Lupescu". He sold his first story to *Weird Tales* when he was fifteen years old!

John and Dorothy deCourcy have a very entertaining bit of fantasy in this issue by the title, "Unbelievutinosity". Forrest J. Ackerman has another, "The First Men on the Moon". There's a poem by Lin Carter, and a story by Phillip Barker. Also a list of the articles and stories that have appeared in fan publications by David H. Keller. Perhaps his best works are listed in this group.

* * *
FANTASY-TIMES: 10c; James V. Taurasi, 137-03 32nd Ave., Flushing, N.Y.. The full coverage newzine of fandom, carrying all the latest news in all fields of science-fantasy, both in fandom and in the pro fields. Published twice a month, it keeps abreast of the latest happenings. For example, in the second August issue is the actual cover of the new science fiction magazine, *Galaxy*, and a short news item about the editors of that magazine. Mr. Taurasi interviews the editors of the various publishing companies about their plans and forthcoming issues, and does a thorough job of it. Top news of the second July issue is Art Rapp's joining the army. For the last couple of years Art has been one of if not the most active fans, being editor of *Spacewarp*, one of the most entertaining fanzines of all time.

Good luck, Art, and wherever you are when you read this—as I'm sure you will—have a drink on me. And while we're at it, we might as well review the new Spacewarp as put out by some of the fellows in FAPA. The mimeography is by Charles Burbee, the Dittography by Walter Coslet, and the mailing address is F. Towner Laney, 816 Westboro Ave., Alhambra, Calif. It's issue number 42, which means that Art Rapp brought out forty-one issues. This one is really big, eighty-two pages! A lot of Art's admirers and friends contributed to it, including myself.

ORB: 20c, 75c/yr.; Bob Johnson, P.O. Box 941, Greeley Colo.; August-September issue. This is a really outstanding specimen of fan publishing. Regalength paper, with a terrific cover in black red and gold, with the contents on photo-offset. There are some pictures in this issue of the editor and his fellow fans, a poem by Henry Andrew Ackerman that is a publisher's work of art worth framing. I really can't praise this fanzine enough. It's breathtaking.

DAWN: the fanzine from Kentucky; 10c; Russell K. Watkins, 203 Wampum Ave., Louisville, Ky.. Although this fanzine contains articles and stories of interest, its main feature is the letter department where running discussions among fans are carried on. You'll enjoy getting in on these discussions, and if you're a newcomer to fandom you can get to know the more prominent fans very quickly through reading their letters in this zine. In this issue, no. 9, is a wonderful little story, "Weakling", by R. J. Butler. It's one of the best stories to appear in fanzines lately, in my opinion.

RHODOMAGNETIC DIGEST: 25c; George Finigan, 2524 Telegraph Ave., Berkeley 4, California. "Being the proceedings of the Elves Gnomes and Little Men's Science-Fiction Chowder and Marching Society." If you live in Berkeley this is a fan club worth looking up. If you don't, this is a really well done fanzine. Its forte seems to be the expressing of positive opinions on things of interest to fans and stf readers in general, and such a policy is worthwhile in that although you may often disagree with what is said, you will get new slants and ideas. All the articles have a good adult viewpoint.

SHANGRI-LA: no. 22; official organ of the Los Angeles Science-Fantasy Society; 15c, with regular and associate members getting it free. Forrest J. Ackerman, 236 1/2 N. New Hampshire Ave., Los Angeles, Calif.—The LASFSers have a club room at 1305 W. Ingraham in L.A.. If you're in town drop around and get acquainted. If you live out of town you can be an associate member for a dollar a year, which brings *Shaggy*, as the zine is called, and all special notices of the club.

This issue is one of the most unusual fanzines I've ever seen. A form letter was sent to forty odd west coast professional writers and editors asking them to write a thousand words in either article or fiction form on their conception of what life in 2150 A.D. would be. This issue is it, with the authors of the twelve ideas of the state of things in that year numbering among them Ray Bradbury, A. E. Van Vogt, Eric Temple Bell, and E. Mayne Hull. I'd suggest you send your fifteen cents by telegram unless they ran off an extra several thousand copies!

QUANDRY: no. 3; 10c; Lee Hoffman, 101 Wagner St., Savannah, Georgia. Bob Tucker has a short tale by the title, "The Face on the Futurian Floor." And there's a very thought provoking article, "Tomorrow..." It concerns the precedent set by kings of old in granting rights to settlers for land that belonged by right of possession to the natives here in America and elsewhere on the Earth. I think any of you would like Quandry very much. Lee Hoffman shows evidence of being quite a gifted editor.

WESTERN STAR: 5c; 12/50c; Jim Kepner, 1534 Grant Ave., San Francisco 11, Calif.. From its name it sounds like a newspaper, and it is a science fiction newsletter, a west coast one. Jim belongs to the Golden Gate Futurian Society, the local stfan club which is putting on a two day westercon next year. You can keep up on the developments and plans for that big affair by subscribing to this zine. The aim of the zine as expressed on the editorial page is to "explain fandom to the newcomer, review its history and keep abreast of its current affairs, keeping in mind its relation to the parent body, the science fiction publications." Jim sent the first two issues for review in *The Club House*, and they seem to be threatening Fantasy-Times' position as the leading newszine of fandom. They top F-T for west coast coverage. Maybe that's what's needed, a west coast, and an east coast newszine, not to mention Bob Tucker's midwest newszine.

SPEARHEAD: Thomas H. Carter, 817 Starling Ave., Martinsville, Virginia; no price listed. "A quarterly magazine of poetry and comment." David H. Keller heads the issue with an article on "The World Destruction Theme." It's an excellent article along the lines of something I wrote about in *The Club House* some time back, about students of stf writing articles discussing the various treatments of one theme in the broad field of existing stf literature. This is a very fruitful and almost untouched field. Science fiction is the cradle of ideas, and perhaps ninety percent of the ideas that will become current a century from now already exist in this branch of fiction. Also several nice poems in this first issue.

SHIVERS: 10c; quarterly, Andrew Macura, 230 Prince St., Bridgeport 8, Conn. A good generalzine with short stories, poetry, and articles. The contributors are well known fan names such as Hal Shapiro, Ben Singer, Michael Varady, Bob Johnson, etc. An idea worthy of a pro story is "Not to be Opened Until Morning" by Michael A. Avallone. Very interesting is the "Weirdities" by Johnny Blyler, which gives several items of the Charles Forte type.

You know, I'm lucky to get all these fanzines for review and not have to subscribe to them. Each one is definitely worth taking regularly. This one is no exception.

MEZRAB: subscription rate—a letter or postcard requesting the next issue. Fair enough, though the editors can't get rich thataway! Marion and Robert Bradley, Box 431, Tahoka Texas. The editorial is by Bob, and in it he says Marion will have the most to do with the next issue. That should be a lot of fun, two people putting together a fanzine like this.

Genevieve K. Stevens has a poem, "Magician" in this issue. Best story of the issue is "Two kinds of Logic", by Bill Oberfield, having the enticing lead, "When the victim of murder refuses to stay dead the reason can be logical without being obvious..."

UTOPIAN: 25c; R.J. Banks Jr., 111 So. 15th St., Corsicana, Texas. Mr. Banks is developing a fanzine that shows promise of being one of the top ones. Not only that, he's playing an active part in getting a Texas fan club started. I think right now this zine surpasses the others in quantity and quality of fiction. "An Interview with Col. D.H. Keller" by Banks is the best article. Forty pages, and worth much more than a quarter.

That's all for this time. It isn't all the fanzines for review, but all the space I can have this time. There are getting to be quite a few fanzines being published. I wonder how big actifandom is now? Three years ago when I started *The Club House* there weren't so many—less than a thousand; but now my guess is that there are at least three thousand people who subscribe to fanzines or publish them, and correspond with other fans. They're all ages, from kids under ten to kids over sixty, and from all walks of life. They're the people who have discovered the unlimited horizons of fantasy and science fiction, and want to join in the big family of those who have also discovered that man's mind is able to travel into other realms than the here and now. I'm one of them—and perhaps you are too. Then why be a hermit? Subscribe to at least one of these fanzines.

—Rog Phillips

Astronomical Madness?

By J. R. MARKS

IF YOU picture the scientific mind as necessarily closed and blind to anything radical, you're completely wrong. True, the traditional picture of the scientist is always painted in conservative closed terms, but that's far from the truth. Many scientists, particularly physicists and astronomers, who have seen so many pet theories shattered in the last half-century, have minds as wide open as a pair of garage doors.

Dr. Harlow Shapley, world-famed astrophysicist in a recent article accurately and rather picturesquely painted this opened-mindedness with a free-swinging brush. He said: "scientists must dream of the impossible, and promptly design the best way to attain it." Doesn't that sound like a science-fictionist?

He points out that science is beginning to get a glimpse into what apparently has the making of a radical new era, an era comparable with the one we've just gone through and which saw the introduction of the Alice-in-Wonderland idiocy of quantum theory and relativity.

Maybe, Harlow Shapley suggested, space does congeal directly into matter! Perhaps

the Moon is alive! Maybe relativity is a complex picture of something simple! Perhaps other planets have invisible Saturnian rings! Maybe a trans-Plutonian shell of comets reflect radio waves! Perhaps the galaxy is composed of several—not one! Maybe there are unknown elements existing in the interior of stars completely different from anything we can imagine!

Do all those "perhaps" and "maybes" sound like the out-croppings of some staid conservative, conventional "scientific" astronomer?

No, they sound like a small boy who is anticipating the pleasures of breaking into the pantry or the refrigerator, waiting to get at the infinite goodies within. They show a completely unbiased almost science-fiction attitude toward the mysteries of science yet to be unfolded.

As long as men like that exist in the foremost ranks of research scientists, whatever their field, I don't think we need worry about fuddy-duddy conservatives not being able to see beyond the ends of their noses. Go to it. Dr. Shapley, we're with you one hundred per cent...!

The Reader's FORUM



HEROES HATE TO DIE!

Dear Sirs:

This is my first letter to AS and because of this I'm kind of nervous, also I don't write letters too well.

I'm 14 years old, and buy just as many editions of your magazine as I can, even though I'm having trouble finding quarters, if you know what I mean. I even missed that June issue: them guys were raving about, doggonit!

I just put down the October edition of AS and had to write and compliment you on the cover. You're starting to dress the gals up a little more. I'm afraid mom and dad don't approve of me buying magazines with that kind of pictures on them (need I say more?). Of course, it was a little revealing, but not as much as a couple other issues I've got. Don't you guys ever run out of flesh colored paint?

Now that I had my say about the cover, we turn to the story part of the book.

1. Weapon From The Stars—It was pretty good as most Phillips' stories are. But what happened to our hero, Henry Prince, didn't he get the dame? Most heroes do.

2. Repair Job—It needs repairs, but it'll pass.

3. Mr. Lahr Says His Prayers—Phooie.

4. The Country Beyond The Curve—Real good. Sheldon and Phillips both write good stories.

5. Seven Came Back—It started out good and the rest was just about the same. Good, I mean.

6. Gateway to Glory—That was pretty good. Let's have more of Mr. Brown.

How about getting some Edgar Rice Burroughs' stories? I've heard a lot about them, but I never read any. Also get that guy who wrote The Man From Yesterday, to get Avar out of that jam. I don't think he likes to be killed at the end of the story. Most heroes don't.

Anyway, I think you've got the best SF magazine that's being put out.

Tony Bilello
2132 Iowa Ave.
Granite City, Ill.

Judging from some of the sequels we've seen, that were based on what originally very good stories, we're wondering if perhaps all heroes shouldn't be killed off. That way we could at least escape from a let-down by reading said sequel! —Ed.

NO SENSE TO THE TITLE?

Dear Mr. Browne:

Milton Lesser's ALL HEROES ARE HATED! takes top honors. It was well written, interesting, and by no less than an ex-fan, if this is the same Milt Lesser I am thinking of.

Jones for once forgot about fat beauties in scintillating garments and gave us a good cover. All I want to know though is why the title; it most certainly doesn't fit the story.

Among the shorts, two of them, Mack Reynold's ONE-OF OUR PLANETS IS MISSING was the best. I like this boy's stuff, keep them coming. Next came that piece of putridity, THE DAY THE BOMB FELL. I won't even bother to finish capitalizing; it, in so many words, stank.

The rest of the stories ranged from fair to below sea level. Yes, even THE WORLD OF RELUCTANT VIRGINS. I'm getting to hate Williams, he used to be a good author, wha happened?

I forgot to ask, I am in need of a detective, the last few issues of your magazine have been missing the last 30 pages. If anyone finds out wha happened to 162-190, please inform me.

Joel Markman
1560 Grand Concourse
Bronx 57, New York

It seemed to us, in changing Lesser's original title to "All Heroes are Hated!", we had pretty well summed up what the story was about, plus adding to the dramatic punch of the story itself. In it, the Star-men were hated to pieces by the rest of mankind because a misadventure by the Star-men had resulted in a virtual quarantine by the rest of the solar system directed against Earth.... Paper is again becoming a problem, which will answer your "wha happen" query. —Ed.

THE EIGHTH GRADE COMES TO HOLLYWOOD

Dear Editor:

Great shades of the barycentric parallax! It's a shame that Hollywood, with all its resources, can't hire a good technical advisor for its up and coming sf films. I just saw a pic called "rocketship X-M". Though there were many technical incongruities, there was one that shone above all the rest as a perfect example of incompetent technical advice. It happens in interplanetary space. Lloyd Bridges looks out the port and exclaims, "Meteorites". Now mind you, in space! Not only that, but to top, it all off, everybody agrees with him, even the learned prof with a string of degrees that even Danny Kaye couldn't pronounce.

Now I have always been laboring under the apprehension that those fearsome chunks of firmament wandering about in space were *Meteors*, no matter what unique form of nomenclature you utilized. And still laboring under that apprehension, I refrain from calling that selfsame chunk of matter a meteorite until it has forcefully inbedded itself in another firmament of greater mass. (At least that is what they taught me in the eighth grade.)

Maurice Raboid
Box 4292
Miami Beach 41, Fla.

Hollywood can hire a good technical adviser on a science-fiction picture. "or *"Destination Moon"* it used Robert A. Heinlein in that capacity—and we can't imagine a better choice. But usually film producers aim for entertainment first and verisimilitude second. As we recall the "meteorite" scene in "Rocketship X-M", we found it vastly entertaining even while our critical judgment was being offended!

—Ed.

THE TRUTH ABOUT WRITERS

Dear Editor:

Thanks for a swell editorial. You've hit upon something we fans are very enthusiastic about and anxious to know more about—the people who write what we read. I'm sure that at least 80% of us would appreciate it very much if you would continue to give us this sort of information in your editorials. You say you'll be only too happy to oblige us fans who want more info. Do ya' really mean it?

The cover this issue is rotten! Please give us something that ain't so cluttered up. Looks to me like covers with only one or two objects on them would be easier to paint than the present things. Why don't we see more of them?

What has happened to Rog Phillips? His story, "Weapon From the Stars" was actually mediocre. He's my favorite author,

too. Hope he hasn't run out of ideas or anything. Maybe his ultra-prolificness is finally catching up with him. More likely it's just one of those slips all authors make occasionally. As far as I know, this is Rog's first.

Clifford Simak's story, "Seven Came Back" was the best story this issue. 'Twas perfect: Novel idea, smooth writing, no holes, emotion-gripping, and a clever ending.

Next came Fredric Brown's "Gateway to Glory". It was blood and thunder adventure built around a rarely-used idea, but I still liked it a lot.

Great gosh! Put clothes on the women in the illos! Why that would be a violation of one of the established laws of science fiction. It would be nice, though.

Seriously, I don't mind nude women in the illos and covers as long as they don't look so durned lewd. But if you get to using the kind of femmes which a certain well known artist draws, look out brother!

This new artist, H Utah, is one of the two better-than-mediocre ones you use. Keep 'im. That reminds me, why not have a cover by Sharp or Terry once and awhile. That is, unless you can't get Finlay, Bok or Calle.

By all means, PLEASE give us a longer letter column.

Tom Covington
315 Dawson St.
Wilmington, N. C.

Our column containing a few thumbnail sketches of AMAZING STORIES' authors was so well received that we're toying with the idea of devoting an entire editorial to more of them. The only trouble is that so many of our writers are sensitive souls with no sense of humor where their own peculiarities are concerned, that putting them into print may drive some of our top names over to one of our more sober-sided competitors!

—Ed.

THAT'S TELLING HIM, BROTHER!

Dear Mr. Browne:

Just when I was nearly ready to concede that Alexander Blade was offering serious competition to science-fantasy's top authors, he disillusioned me with a shocking error in his WARRIOR QUEEN OF MARS (September, 1950); the Blade blunder can only be attributed to a complete lack of research plus a boyhood proclivity for reading Buck Rogers Big Little Books when he should have been listening to his high school chemistry teacher.

I give you page 15: "Have discovered extraterrestrial human female with C three H eight O three metabolism." Later, Mr. Blade confides to his bewildered readers that the gal has an alcohol metabolism. True, C₃H₈O₃ is AN alcohol...namely glycerine, more appropriately written C₃H₅(OH)₃. However, I have no doubt that

what Mr. Blade was trying to describe was good old ethanol: C_2H_6O (better written: C_2H_5OH).

R. G. White
36 Fifth Street
Woodlawn Beach
Buffalo 19, N. Y.

You won't see Mr. Blade around for a while. He's gone back to school; and this time, instead of playing left half-back, he's going to get an education! —Ed.

CLEVER AND FUNNY!

Dear Mr. Editor:

In your September issue of *AMAZING STORIES* "You Can't Escape From Mars" by Mr. Jarvis was the best, but the squeeze was pretty tight over Mr. Wyndham's "The Eternal Eve". The worst story was "You Might Say Virginia Dared" and it was readable.

That was a very cute Observatory you wrote this time—shows a sign of cleverness. It was kind of funny too!

When are you going to get some goodillos for inside? How about one from Mr. Finlay or am I just dreaming?

Gerald Hibbs
Box 852
Detroit Lakes, Minn.

We run quite a number of Finlay illustrations in FANTASTIC ADVENTURES. Since his artwork runs more to fantasy than science fiction, we rarely are able to use him in this magazine. —Ed.

COVER THE COVERS

Dear Editor,

I wish to cast my vote in regard to the covers. Change them. If your artists must copy someone, why not Bonstell instead of Bergey? Some fans would buy AS just for the cover. I want to find out if your mag can compare with ASF. I can read that mag in the warm light of Sol and not have to worry whether human or humanoid see me. AS I read high in the attic in the wee hours. I get so sleepy that I cannot tell if the stories are bad or good. So change the covers, will ya?

In the last few issues a good number of fans have been asking you to reprint some Burroughs stories. They didn't get any answer. Yea or Nay? Don't tell us that, because they were written in the 30's, they wouldn't be scientifically up-to-date. In your last novel *YOU CAN'T ESCAPE FROM MARS*, Jarvis made a mistake that anyone would recognize. In that story the Martians had built gravity machines to hold the atmosphere to the satellite Phobos. If this happened, Phobos' attraction to Mars would be greater than its orbital velocity and it would dive toward Mars. Then, because of the gravity of both bodies, Phobos would burst into a million

pieces and Mars would become a ringed planet like Saturn. As long as the stories are going to have mistakes, print a Burroughs story.

George O'Toole
119 King Avenue
Yonkers 5, N. Y.

Perhaps the cover is along the lines you have in mind. Straight symbolism, but with strong dramatic meaning..... Re-printing Burroughs' classics would be of doubtful interest; surely everyone interested in science fiction and fantasy has made a point of reading his books..... Jarvis will have to answer your question about the gravity machines on Phobos; our own reaction is that you're overlooking something in your reasoning on the point.... Your last sentence is about the most cryptic we've ever come across, especially in view of your request for stories by the late Mr. Burroughs. —Ed.

ONE MAN'S POISON

Dear Ed:

I agree full-heartedly with Mrs. Neuman. With all the filth and trash on the newsstands, we certainly don't need any more. I enjoy your magazine very much, but I'm going to stop enjoying it or even buying it, if its illustrations continue to imply sex. Keep AS clean and wholesome! How about it, fellas?

Patrick Kevin O'Shaughnessy
Newark, New Jersey

If "implying sex" is "filth and trash", then every love story ever told is an implied obscenity. We don't believe that, either! —Ed.

STOP!

Dear Mr. Browne:

Congratulations! The cover on the September *AMAZING* was a definite improvement. By far the best cover in the last five or six years. However, there is still room for improvement. I don't know whether it is the artists you use or your color process, but there is a glare and hardness to the colors on your covers which the other magazines seem to lack. Your reds are redder, your blues are bluer—and while there is definite shading on most covers, the overall effect is of a cover with no shading whatsoever, simply three flat colors. I'll admit it's eye-catching, but so is a highway stop sign. And stop signs usually aren't praised for their esthetic appeal. Your covers may sell magazines but the lack of this type of cover hasn't seemed to have hurt some of your competitors. Anyway, thanks for playing down the sex.

Your stories showed a definite improvement this time. All around I'd say this is the best issue since you acquired shaver.

At least this is the first time I've read every story all the way through. I especially liked "The Eternal Eve". Incidentally, why should Rog Phillips label one of his better stories as being by Charles V. DeVet? He had nothing else in the issue.

Also, plaudits on your letter column. It has had a tendency to be juvenile in the past, and the adult letters contained in this issue were a welcome relief. Of course, you could carry that trend too far.

Vernon L. McCain
R.F.D. No. 3
Nampa, Idaho

Stop signs are designed to be eye-catching; magazine covers are designed for the same purpose. Nobody ever buys what they can't find; we want to make sure our readers can find their copies.... Believe us, Charles DeVet is Charles DeVet, is an excellent craftsman in the writing field through his own efforts, and owes his success to the same reason. —Ed.

HE DIDN'T SAY IT!

Hi,

As to salutation, I'm never formal enough to use Sir, Dear Ed or Dear Mr. Browne. "Hi" is plenty.

At this point I should say, "this is my first time to write to an stf mag" or "what does the 't' in stf stand for?" However, I have been reading stf and writing to mags long enough to say neither.

Regards the September AMAZING STORIES, of which I've read only the articles and the Reader's Forum—which I always read first—I wish to say in answer to:

J. Wollett's letter, which you head "Of Cabbages and Kings", (cabbages because some people are cabbage heads, I suppose), in which he says, "Your magazines would be improved if you left out those short features." Little does he realize that the short features are an important feature of your magazines, as far as a *great number* of readers are concerned.

Mrs. Inez Neuman's letter, in regard to covers, my vote is the same as hers. I get tired of having to hide the mags because of the covers. I believe that the covers at one time had to be "lurid" to get buyers, but this no longer is the case. An interesting sidelight of this is the fact that I have had many fellows ask me what I was reading and I would show them. They would look at the covers and whistle, open the mag, look for more of same, find none, close mag, and say "I wouldn't read that stuff." When I am finished I would discard it, (am in the U.S. Air Force) in the usual place for trash, and within a few minutes it would seemingly disappear completely—and yet only a few men in the barracks claim that they read stf. (Didn't mean that your

mags are trash. Far from it...only using this as a record of events.) Consequently, my vote is for covers in good taste, interesting, and when illustrating a scene from one of the stories, you should come closer to representing that scene than has been done in the past. By good taste, I don't mean that women aren't allowed. Furthermore, I am not a prude, but if I want undraped or semi-draped women, I purchase the mags that cater to that type of trade.

At this point I should say, "I suppose this letter won't be printed because..." but as stated in my second paragraph, I'm an old time stf reader and won't say such things.

As to the stories, I have no complaints or comments at this time, and I read all Z-D publications in the stf field, that I can get hold of.

Keep up the flow of good stories coming.

Delbert I. Getchel, Sgt.
2349th O/S Repl. Sqdn.
2349th Org. Mail Room No. 2
Camp Stoneman
Pittsburg, California

CONVERSATION PIECE

Dear Mr. Browne:

Was ist los? A whole letter column, and the only two people I can find to agree with are both women. Agreeing with women is not a habit of mine, because you get such wonderful results from arguing with them.

Mrs. Richard Phillips appears to be an unusually intelligent person, and has summed up, or rather broken down one of the reasons I was about to quit reading your mag. Boredom.

Mrs. Inez Neuman voices one of the usual gripes. The covers. They're awful.

I took a girl friend of mine to a movie last night and on the way home I bought your current (September) issue.

She asked me, quote "Do you read that trash?" unquote. When I asked her what she meant by referring to my favorite form of fiction as "trash" she told me that she "can tell by the cover that it's trash."

The argument that followed I will not go into but when your covers are driving potential readers away, it is time for a change. Science-fiction readers, you profess to believe, are an intelligent lot. Why not give them credit for it? The other pulps are presumably aimed at people of slight education and/or low mentality. Your magazine is aimed at a more highly educated, higher intelligence level. But your covers, except for the rocket ships, look just like every other pulp on the stands. Exceptions: OTHER WORLDS, ASTOUNDING SF.

You published two good stories this issue. THE UNEXPECTED WEAPON was quite good; somewhat reminiscent of A. E. vanVogt. DeVet is not one of the

master's pen names, is it?

THIS WAY OUT was also interesting. Familiar plot, but not quite so hackneyed a treatment as in the rest of the stories.

THIS TABLE RESERVED—interesting solely for the motivating factor that brought Trudel back to the "past".

Ralph P. Belsinger
1622 Blair Avenue
Cincinnati 7, Ohio

See this month's cover; it was picked especially for your girl friend! —Ed.

THE FIRE BOYS STEP IN!

Dear Sir:

I have been an ardent reader of both FA and AS since 1945, and have decided to dispose of my back number issues.

Before doing so to so-called back issue dealers, I would like to have you publish in the Reader's Section of FA and in the Reader's Forum of AS, just as soon as possible this letter and announcement, that I will either sell or exchange even with any other reader the back issues listed hereafter at the following rates:

Any issues I have prior to 1948 of FA at 15c each or 2/25c postpaid, and any issues of AS prior to 1947 at 15c each or 2/25c.

Issues after these dates at 10c or 3/25c postpaid.

The only reason for me giving up the collection of the magazines is that I have too many books accumulating, therefore no room to store the magazines, and because of a notice from the fire department of a fire hazard.

I am very sorry that I have to give up the earlier issues, as I sometimes go back to them and reread the stories they contain, and I really enjoy this rereading which cannot be expressed in mere words.

Any reader interested in my offer, please write before one month after the publication of the letter.

A. A. Koppelman
1149 South Mozart Street
Chicago 12, Illinois

Our guess is that the boys down at the fire department are science-fiction fans, and they're using this method in hopes you'll turn your collection over to them! Perhaps their method is a bit drastic, but we admire their taste. —Ed.

DON'T CHANGE A THING!

Dear Sir,

I have just finished your October issue of AMAZING STORIES. This is the first time I have read your mag, much to my regret. I have been an avid fan of SF mags for the past year and will not hesitate to say that yours is the best I have read yet. That is not just flattery either.

After thoroughly digesting every word of the October issue I have come to a conclusion. I was more amused than amazed, therefore I think your mag should be called AMUSING AND AMAZING STORIES.

All kidding aside, I am placing your mag at the top of my SF reading list from now on. Just keep up those swell stories such as Rog Phillips' "Weapon From The Stars". I noticed in your letters to the editors that several of your readers wanted to make some "drastic" changes in your illustrations and methods of selecting stories. This is one reader who is perfectly content with things as they now stand.

I would appreciate your passing on the information to your other readers that I am interested in purchasing back issues of AS.

John Montgomery
Star Route 2
Littlefield, Texas

The letter immediately preceding yours, John, would seem to be especially written for you. This is what's known as service. —Ed.

ON THE OTHER HAND...

Dear Sir:

I have been a science fiction fan since the time when the only place you could find one was in the ARGOSY WEEKLY, WEIRD TALES and THE DETECTIVE FICTION WEEKLY (Ray Cummings).

This letter is written because of the misconception you and W. L. Hamling seem to have as stated in the November Observatory.

I don't give a continental about the accuracy of the premise upon which the story is based as long as the story is good. I don't give a hang about the author either. Except Richard Shaver. I burn ever since that two bits I wasted on one issue of your magazine that had 3 stories by him I couldn't finish because I gagged on 'em. Ever since then, I have looked over the authors to be sure and cross off his story. I otherwise read from front to back. That includes the shorts and editorial comment. I quit reading the reader's comments long ago because they seemed to pan the stories I liked the best.

Could I put in one vote for one old style story per year with some nice bloody rocket ship fights? That sounds pretty juvenile I'll admit, but if it weren't for people like me, they wouldn't sell a single western and a lot less science fiction.

Norman C. Homiller
1509 W. Capitol
Springfield, Ill.

...THE COVERS ARE FINE!

Dear Editor:

There seems to be a lot of talk about the covers on AS and FA. I would like to say that I like the covers with the nudes or semi-nudes. There are a certain number of people who think that if a woman has anything covered, other than her hands and face, the picture is sexy, immoral and obscene. That is absurd. If that were true, the Venus de Milo would be obscene, more than fifty per cent of the pictures in the Louvre would be obscene, in fact the majority of all the great paintings all over the world would be considered obscene. Most of those who write are of that type. Most of us don't write because we think that beautiful art speaks for itself and needs no further defense. We recognize art when we see it, and you have some very fine artists doing your covers. Their fine work should not be hampered because a few bigoted people who don't understand fine art are complaining. I say bring on the nudes, "the more the merrier." I may seem a bit gone on the subject, but after reading several of the letters I got rather mad.

As to other matters, all I can do is add my praises to those you have already received and so richly deserved. I hope you will have another "Toffee" story soon, because I have read, reread, and re-reread Thorne Smith so much that I know most of his stories by heart and I want more in the same vein.

Newton W. Hooton
13 Buckingham St.
Cambridge, Mass.

And all we have to do is make everybody happy. How about a cover showing a spaceship moulded into the likeness of a beautiful, unclad girl?

—Ed.

FROM THE EMPIRE!

Dear Mr. Browne:

Two days ago I got hold of the English edition of the AMAZING containing Abernathy's "Ultimate Peril". I can see that with authors like that on top over there I'm going to be the luckiest writer this side of heaven if I get anything accepted by you! I had read some of Abernathy's previous work, but the latest exceeds his previous efforts absolutely.

Congratulations further to Robert Gibson Jones, your top artist, for the finest and most eye-catching cover I have yet seen on an sf magazine, beside which such examples of his previous work on R. M. Williams' "When Two Worlds Meet" are absolutely nothing. It's a picture of definite artistic merit, refreshing change from the common ones of sf illustrations. Why, oh why, is it that so few illustrators, and so few blurb writers whose one-line summary adorns the list of contents, ever bother to read the story before they start? Anyway, I reckon it's brilliant. (It's a mere Britisher, by the way, I am right,

am I, in identifying the portion of Earth below as the north of Canada with Hudson Bay prominent? It took me ten minutes to get that far—without an atlas, though.)

"Sword of Peace" was the second best in this issue, and congratulations for that also. "The Man from Arbutus"—with due respect to H. B. Hickey—is garbage beside these two. And "For Each Man Kills" and "All Else Is Dust"—which would have been tops in any other issue—are merely mediocre.

This may amuse you: I culled from (of all unlikely places) a staid, sober and utterly un-sf-conscious London evening paper the following astonishing statement:

THE INTERPLANETARY TRAVEL-
LINES ARE BEGINNING TO HUM!
(It was actually from a review of Pal's "Destination Moon".)

John Brunner
"Highlands"
Woodcote, Reading
U. K.

LETTER OF THE MONTH

Dear Sir:

First, let me say 'Howdy' to you, because I'm a friend of AS, and have been for some 23 or 24 years. Grew up with it, I might say. I'm one of the great majority mentioned in Observatory who are not club-fans, who shun conventions, and who never write to the editors.

The only time I ever wrote to the editors was during war years when Uncle had his arm around me, and with that exception, when I tried to nail down some non-existent copies of AS, your unnamed author's remarks are true. On the surface, I do read AS for entertainment. I consider science fiction as a means, of entertainment, a unique, provocative departure from the realm of the usual.

Let me say here that I am an omnivorous reader, and have been for 25 years. Adventure, mystery, detective, western, northern, romance; Burroughs to Steinbeck to Ferber to Grey to Asch to Ellery Queen to Dickens to at least a hundred others old and new; good, bad, indifferent, and mediocre. Including the Bible and a large chunk of Shakespeare. So when I write that I have read AS as regularly as possible, I go on record as proclaiming it a mark above any fiction I ever read or heard about.

Do not be deceived by appearances, Mr. Author. My IQ is 132, and many of us 'no-writers' have intelligence above and in the general area of that number above. We are a separate, special part of the reading public. We have to be, to be able to read, analyze, and enjoy science fiction.

To be sure, sometimes our favorite magazine has ups and downs, the same as our favorite authors. When a person is ill, are we expected to upbraid him? When someone is blue, or down-at-the-mouth, do

we rave, threaten, flatter, or cajole? They'll recover, we assume. So will AS, or any other magazine.

So, because we readers, the majority of us, continue to be silent during changes in the course of our vessel of enjoyment and stimulation, do not presume that we do not know at least part of the answers. We may not agree with the author of a story—or an editorial policy, for that matter. We may find a story as full of holes in its theory as a Swiss cheese, and yet say nothing, because we are human enough to expect some mistakes, large or small. We may dislike the covers, the addition to or removal of a Reader's Forum, the size, the type, number of stories, any or all the authors, and yet continue to buy—and read! Because of our basic loyalty to a great modern institution, which I claim: **AMAZING STORIES** to be. Because there are *always* some grains of truth amid the straw of typed pages. Because, while our friends and relatives smile pityingly and shake their heads, we persist in reading to our own individual enlightenment and mental stimulation.

This last statement was in for a radical change after Hiroshima, by the way; at least in my case. I grew up in a small town in southern Iowa, where everyone knew everyone else and what they did and read and thought—practically. So I became, perhaps, a lone-wolf as far as reading science fiction was concerned. A good many of us are; by either necessity or choice, lone-wolf sf fans. It's harder to stand the smiles and the things *not* said by people who know you read sf, than it would be if they called you a damned fool who wastes his time reading trash! And that happened, too, occasionally. As a result, I knew more about the probable conditions on planets than my school teachers did; I could write with Wells and Burroughs and Lovecraft and others what *might* be someday, somewhere. Only I couldn't say so out loud.

I assume there are many others in situations similar to mine. We've stood more ridicule and contempt for reading what sf authors write than the authors themselves. But we read, and keep silent. We read other things, too. At one time, prior to the 2nd round of the World War, I had read every book on astronomy, geology and archeology in the San Diego Public Library. *All* of them, Mr. Author! Many of us have done the same, or better:

So don't think we don't check every word, every thought, every article in each copy of AS we read. Every theory, every proposition, every quirk of fact or fiction comes in for microscopic analysis.

We're a loyal crew; we're logical; we're informed. We have a high type of mind. We are able to understand things beyond the grasp of the average human. We can visualize, imagine, prophecy. We expect phenomenal progress; we are not sur-

prised at much that happens, in or out of this world.

My vote goes to Mr. Hamling, all the way. I, in all probability, shall retire again within my inarticulate shell, and never write thus again. I feel that this author has misunderstood us; that, if he does begin to understand, he will become, perhaps, a great, instead of just a good sf author.

I'm sorry to have said so much, Mr. Editor, but as an sf, and especially an AS, fan and reader for 25 years or so, I guess it's worth it. Thanks for hearing me out, and some day I may take a shot at writing a yarn myself. Until then, if it ever happens, clear ether.

Merle Ray Huntley
856-21st-St.
San Diego 2, Cal.

You've pretty well summed up, Merle, the response of the majority to our editorial in the November issue. Literally hundreds of steady readers of AMAZING STORIES wrote to us for the first time to comment on the "author—Hamling" controversy. Many sided strongly with the science-fiction writer; but a larger number supported Hamling to the hilt! —Ed.

"PIN BACK HIS EARS!"

Dear Mr. Browne:

I'm glad Mr. Hamling pinned unknown author X's ear back. We non-writing few, although silent, do not like nonsense. At least I don't. We suffer in silence thru an occasional story such as "Toffy" (I know it was in: **FANTASTIC ADVENTURES**), stay home from conventions and club meetings, and save our energy for handing out quarters for mags that don't contain silly science.

Entertainment comes first, of course, but the other types of literature can supply this as well as sf and/or fantasy. The sf fan wants more than this; his or her overdeveloped imagination, if nothing else, demands that extra something, and demands that it at least sound sensible and be based on fact.

For some time I didn't buy **AMAZING**, but have been doing it regularly again of late as the "nonsense science" and general juvenile aspect seem to have disappeared from its pages. (This I can't figure out, as Other Worlds is just my dish. A clash of personalities perhaps?)

Please add my vote to the keep 'em dressed or keep 'em off the cover list. I might as well add, now that I'm writing at last, that I'd prefer an all fiction **AMAZING**. There are other magazines devoted to articles and science, so why mix your brew?

Dirce S. Archer
1453 Barnsdale St.
Pittsburgh 17, Pennsylvania

(Continued On Page 156)



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(Continued From Page 154)

We, too, feel that entertainment comes first, Mrs. Archer. Our stories, illustrations and covers are chosen with that goal first in mind. Now if we can only get readers to agree our selections are really entertaining...!
—Ed.

SHE KEPT THE COVER!

Dear Sir:

At last you have a cover I didn't have to tear off at once, or hide the magazine—my youngsters ask why my stories always have "undressed ladies" on the front—but now the Nov. issue certainly has more feeling of science-fiction and less of true-story about it.

Having only read sf the last year or so, I guess I'm a newcomer—but a very ardent one. I find the sf world wonderfully relaxing for a busy mother, and my husband admits I'm becoming quite an authority on futuristic ideas.

In general, I find the stories good reading. Some of the more horrible seem a little strong on the gory side, but I guess you have to please everybody.

Must those inside illustrations be so gruesome? More sf!!!

Peg Schwale
620 Avalon
Santa Rosa, Cal.

The "giant hand and spaceship" cover brought on more reader mention (overwhelmingly favorable) than any cover we've used since "half-man, half-bomb" painting on the March, 1950, issue containing Abernathy's THE ULTIMATE PERIL. There are more of a similar nature in reserve; watch for them!
—Ed.

RETURN TO FAVOR

Dear Sir:

I'm one of those readers of science-fiction who has been collecting AMAZING STORIES since the 1930's, but who has not bothered to write any fan letters, join any fan clubs, take part in any fan activities in all that time. The important thing for me has always been the stories you print, and as long as they are good, I'm satisfied.

There was a time in the past few years when I had been sorely tempted to forget all about AMAZING STORIES: the material had degenerated into something of which I was not proud. Science fiction for me is a definite genre of literature, but AMAZING STORIES had gone to such a low state that rather than being a member of the genre, I almost classed it with the comic books.

For the past several months, however, your fare has been constantly on the upgrade, and if you continue the good work there's no telling how far you can go. Most of the stories of recent months have

been excellent—and that has been particularly true of your featured novels. Most specifically, it has been true of the lead novel in the November issue—ALL HEROES ARE HATED! by Milton Lesser. This novel has all the earmarks of a science-fiction classic—the great sweep of the space-opera, without the rayguns and bug-eyed monsters, the vast drama of a universe at unrest—yet with all the dominant action taking place right here on Earth—and most important of all, real human characters who seemed as real as the people who live down the block, and more so. The name Lesser is not a familiar one, and I'd certainly like to see more of this author's work. If he could turn out another novel or two as good as this one, I'd be ready to rank him with Merritt, E. E. Smith, and all the past greats.

As for the rest of the issue, it was good, very good, especially BROTHERS UNDER THE SKIN and WHO'S THAT KNOCKING AT MY DOOR?—but these are not important. ALL HEROES ARE HATED was a classic.

As for science fiction—what is science fiction? It is a way of life, tomorrow's way of life, manifested in literature today.

Philip Lang
920 East 23rd St.
Brooklyn 10, N.Y.

Milton Lesser undoubtedly will admire your taste, Phil, and agree with everything you say about his story. By a strange coincidence, he lives not far from you. Why not look him up?—as a fellow science-fiction fan himself, he'll be glad to meet you, we're certain.... You'll be finding more and more stories of the ALL HEROES ARE HATED! stature in future issues.
—Ed.

"NOW IF I WERE EDITOR..."

Dear Mr. Browne:

After reading your editorial in the November issue, I am going to have to break down my own resistance which has been steadily building up for twenty-five years and write a letter to a magazine editor. Yes, I said twenty-five. Twenty-five years ago I read my first copy of AMAZING STORIES. It was a large magazine, and I remember that most of the stories were about Aztecs and Jungle Princesses and Warlords of Barsoom and maybe a few time machines. The covers were as atrocious then as they are now.

Your writer friend was quite right from my point of view. I imagine I represent a lot of readers. I buy an average of six sf and fantasy magazines each month. There is one I will not miss—not AMAZING—although for some reason I don't understand I have never subscribed. I not only do not read the letters in the back of the book but am always annoyed when I reach the last story and see that the remaining tenth of the book is taken up with a lot

of stuff for which you do not pay fiction rates, and for which I did not buy the magazine. However, I have always told myself that there are probably a lot of people who get a kick out of reading something in print that they have written, and they buy the magazine too. The only unfair thing about it is that you hear from them and you don't from us silent fans; because if you did hear from us we would immediately cease to be the silent ones and would swell the ranks of the opposition.

I like your stories as a general rule; I buy it anyway and always read them all. I did quit during your period of aberration over Shaver—pardon, by you I mean the magazine, not you personally, as I know the Editor was a different person at that time. But I would not mourn over the fact that you ceased publication as a lot of us do over UNKNOWN.

My ideal stf has never been published: or if it has, I haven't been lucky enough to find it. What would it be? The cover would be a design, or a weird landscape or a still life or abstraction: rule one should be NO ACTION SCENES ON THE COVER. I only wish some day some one would try it, and test the response. You know you could print an ad for toothpaste on the outside and still sell to your regular readers, so what the heck could you lose? The stories would be (one book-length novel, two long and at least ten short and short-shorts) by Van Vogt, Campbell, Sturgeon, Pratt, Asimov, Heinlein and a large group of newcomers which the Editor would have discovered. The illustrations would be by Bok, Cartier and maybe Finlay and the Magrarians. There would not be very many. An interested reader makes his own pictures in his head and the illustrators' ideas usually don't match. And outside of a double editorial page in the front, there would not be anything else in the magazine. Ads? Sure, I don't mind. Just like the commercials on the radio. But no departments, no letters, just stf stories. Trimmed edges? That doesn't matter—who reads the edges of the pages? Slick paper? Not as long as pulp is cheaper. Spend that dollar for material.

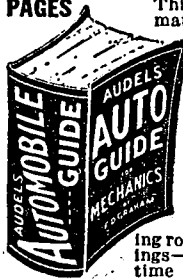
I really wish someone would try it. Kick out all the extra guff and put a big astronomical chart on the cover: leave off the blurbs. Just print the title. And see if you sell any less magazines. I am willing to bet that all these actifans, so-called, are such a small minority of your income—producing group that you wouldn't even notice it if you lost them. They may make a lot of noise, but so do a lot of quarters dropping into cash drawers all over the country.

You brought this on yourself. I have thought of doing it for years, and now can relax for another twenty-five.

Mrs. Marion Carter
P.O. Box 452
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No one can say that you haven't given us some pretty startling suggestions, Marion. But some of them, particularly about covers, are a bit too much so, we're afraid, for both organized and unorganized fandom!
—Ed.

WE WON'T GET MAD

Dear Mr. Browne:

AMAZING STORIES has been my favorite magazine for a long time so don't get mad if I find a fault with the stories here and there. I really like them. They're tops.

I like time travel stories if they use time travel only as an excuse to get me into another era of time and make it seem that I'm really there. But when they're written using a unique twist of events to carry the story, they all have the same big hole in them. Time is a Coffin, for example: He went back because he found his body in a cave, and his body was in the cave because he went back. But then I like stories with an unexpected ending. Maybe that was the point of this one.

Dallas Rose did a good job of building a character out of Ginny for such a short story.

The Mars story was good. I always like stories laid on another planet, if I can be made to see the planet in my mind.

My favorite was The Unexpected Weapon. I was going to say that's the kind I like best. Why don't you have more like that? But what kind is it? Maybe you know. If you do, print more of them.

STATEMENT OF THE OWNERSHIP, MANAGEMENT AND CIRCULATION REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (TITLE 39, UNITED STATES CODE, SECTION 233) of Amazing Stories, published monthly at Chicago, Illinois, for October 1, 1950.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, William B. Ziff, 185 N. Wabash Ave., Chicago 1, Ill.; Editor, Howard Browne, 866 Madison Ave., New York 17, N. Y.; Managing editor, William L. Hamling, 366 Madison Ave., New York 17, N. Y.; Business manager, G. E. Carney, 185 N. Wabash Ave., Chicago 1, Ill.

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5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

G. E. CARNEY,

Business Manager,

Sworn to and subscribed before me this 27th day of September, 1950.

[SEAL]

Bernice Batkin Fusch,

Notary Public.

(My commission expires November 4, 1953.)

Costello has been writing some fine stories. Enough said.

Let's see, have I covered them all? Anyway, there was none that I didn't finish and then decide, "there's another good one." So you see, you've got a steady customer. But then I may be prejudiced, I've been reading it so long.

Oh yes, about the shorts at the end of the stories. I don't know if I like them or not. If they're good I always wonder why the author doesn't write a story around it, instead of wasting the idea.

George Bremer

909 Superior Ave.

Gladstone, Michigan

SOME THINGS TO WRITE ABOUT

Dear Mr. Browne:

Very glad to see the letters column in the September issue of AS! The opinions of the readers are always good.

But this time I thought the stories were excellent, also. In fact, nothing stopped me from reading said issue from cover to cover between Saturday afternoon, when my husband brought it home, and the present moment. Very good! And most of all the heroes were human.

The cover this time was not as bad as some I have seen. In fact it was quite colorful. (Was is the word for it, when one has a ten-month-old baby daughter.)

Although I did like your clowning around in the Observatory, there are plenty of things and events to be observed without that. The outcome of the Korean crisis, what the science-fictionists believe in about the outcome of this sphere in the future... just loads of things to think about, some of them worry us plenty. (And I do not think the religionists have very comforting solutions. How's about you adding your opinions on the subject?)

If you do print this letter, you might put in a hint for me that I would enjoy having some pen pals, especially others who are more than just a little interested in the future and have ideas on this subject.

Anna Lee McLeod

213 S. Union Ave.

Havre-de-Grace, Maryland

We'd like nothing better than to be able to knock out a few thousand words that would tell our readers what the outcome of the Korean crisis would be, or what the future of this planet holds. But the fact remains that being an editor doesn't make one omniscient—a point that some editors and columnists we could name have evidently failed to grasp. —Ed.

WELCOME STRANGER!

Dear Mr. Browne,

I am a stranger to the reader's page of this magazine, but AS is no stranger to me

(nor is FA). I have read AS since I first discovered it when I was 14 and I am now 25.

It has been responsible for hundreds, probably thousands, of happy reading hours in my life.

During the war, of course, it was impossible to obtain your mag over here, although I did manage to obtain a British reprint featuring "Wanted Seven Fearless Engineers" (a smashing yarn by the way!), and I can tell you I really treasured that mag. It was an oasis in the desert, believe me!

However, I managed to get a subscription through the currency blockade in '48 and since then "Happy days are here again."

I have noted many of the requests you have from time to time for a revival of "Tharn" and "Avar" and I would like to add mine to the many. How about it? Since "Avar" is dead and "Tharn" is presumably living happily ever after, why not create a new character? Say perhaps, "The Son of Tharn" or some such sequel. I would sure like to read one of those Cromagnon yarns again.

Things are much brighter on this side now as far as sf is concerned. There are quite a few Burroughs pocket books being published, as well as many others. In '48 you had to hunt like the devil to find an sf mag, and brother, I mean hunt!

About covers, I agree with the lady who complained in the September issue, let's have more conservative covers please, and then maybe you will truly be the top mag in the field. There was much mention recently about reprints, and I agree with your policy except that I think you could afford to improve your mag further by printing say, one story each month which HAS stood the test of time. It must be admitted there are SOME stories which have not become dated and "Adam Link" mentioned by Mrs. Phillips (readers forum Sept. issue) is a classical example of this point.

Best wishes, and keep up the good work.

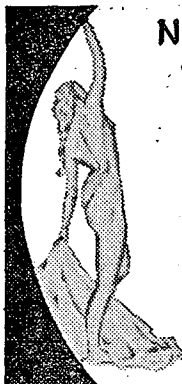
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FROM MEMBERS OF THE "NEWMAN CLUB"

Dear Editor:

In your September issue of AMAZING STORIES is a letter written by Mrs. Inez Neuman in which she takes you to task for the idealized female form that usually adorns the AMAZING STORIES cover. She suggested that you put the matter to a vote among sf fans.

I am much in the same boat as Mrs. Newman, being a housewife with a three year old boy, and may I say right now that I heartily second everything Mrs. Newman says. Especially the part of her



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letter, "Science Fiction slowly but surely is climbing up...change the cheap, shoddy art covers and help give sf a boost upward."

One more thought before I close—isn't it wonderful that, although the world appears to be about to blow itself up, people still have enough faith in humanity to dream of mankind in far-off ages reaching the most remote stars!

Mrs. Ralph Campbell
 7711-6th Ave.
 Battle Creek, Mich.

One of the reasons—perhaps the basic reason—that humanity is still around after all these years is that every generation has a plentiful supply of dreamers! —Ed.

Dear Sir:

Count my vote for Mrs. I. Neuman. I don't like those sexy covers either, for the same reasons she states.

I. Bayler
 2315-26th Ave.
 San Francisco, Cal.

Dear Sir:

I'll vote against Mrs. Inez Neuman. I like the good stories, also the fancy art. I'm over 21.

I have a gripe tho! The short articles about the future are all right, but I'd rather have articles on what is actually being done today towards bringing these things to pass.

John L. Camper
 Route No. 1
 Adamsville, Tenn.

Dear Mr. Browne,

I agree very strongly with Mrs. Neuman and vote for her. I think AMAZING is one of the best on the stands. Please change your covers to ASF and OW type.

Thank you and keep the good stories coming.

Dennis Lynch
 2834 Charlaris Rd.
 San Marino 9, Cal.

Dear Mr. Browne,

I have just finished reading Mrs. Inez Neuman's letter in the Reader's Forum of September AMAZING, and I want to be among the first to add a fervent "Amen" to her remarks regarding the lurid covers of your magazines. I have nothing but praise for the stories, and only wish the covers were up to their high standards.

I, too, am a wife, age 26, and a mother of three very observant small sons, ages 4, 6, and 8. I have been reading AMAZING regularly since 1934 when an obliging neighbor let me loose in her files of AMAZING and ASTOUNDING that dated back to 1928; and FANTASTIC since the first issue hit the newsstands. So, I have no intentions of giving up my science-

fiction, even though my Navy husband is shocked by my reading material (he is not a science-fiction fan and merely judges by the cover); my grocer from whom I buy my literature leers at me conspiringly (I am active in community affairs and I am sure the word has gotten around that I don't confine my reading to "The Ladies Home Journal"); or because my boys come to me with an AMAZING or FANTASTIC magazine in their hands and ask "Mommý, why is that man (or BEM as the case may be) doing such and such to that lady on the book?"

No, I won't give up AMAZING or FANTASTIC, but I, too, hope that you will give us magazines about which we can be pro to say "Yes, this is the science-fiction you have been hearing so much about lately."

Mrs. V. W. Vonheeder
511 Sycamore Street
San Lorenzo, Cal.

Launcher Arrow

By W. R. CHASE

IN THESE columns scientific hobbyists I have often been discussed. There were the radio "hams", the amateur telescope "nuts", and a dozen other categories of people who pursue scientific hobbies for pleasure, profit and entertainment, and who very often contribute something significant. There are other hobbyists, particularly in the field of sports who are more vociferous than the above mentioned but since their fields are not scientific, they haven't been mentioned. Some qualification must be made here, however.

The ancient, honorable and still popular sport of archery, surprisingly enough, has many of the qualifications of a scientific hobby, and in light of certain proposals which will be discussed, has a right to be considered "scientific".

The only older weapons than the bow and arrow are the knife and spear and through a long period of trial and error culminating in the English longbow of the fifteenth and sixteenth centuries, the bow and arrow have attained their ultimate status, modified only slightly by the introduction of metal bows, metal arrows, and a little gadgetry like sighting devices.

Since about nineteen twenty, archery has become exceedingly popular, in particular many professional people, scientists etc., have indulged in it. As might be expected, the scientific minded were not content to accept the bow and arrow, in their present ultimate form. They knew of course that the weapon had evolved by trial and arrow. But why does a bow require a particular shape? What happens



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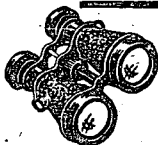
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if you change it? How does the strength of the string affect the "cast" or velocity of the arrow? Can the bow be improved? How about the arrow?

After a long detailed experimentation, physicist-hobbyists, found that the bow and arrow were correctly designed, both according to experiment and as subsequent mathematical theory predicted! The archers went so far as to go into elaborate mathematical analyses of shooting and found that theory predicted experiment.

Another amusing—and perhaps serious—facet of archery, is a proposal to apply it to modern warfare. Archers have reasoned this way: what is needed in warfare is a weapon which will stop tanks. Obviously a bow and arrow won't and the trouble with the weapon that will, the bazooka, the large one, is that the instant it's fired it gives away its position to the tankmen. If the first shot doesn't nail the tank, the bazooka gunners are generally dead men. It is obvious then that the users of anti-tank weapons are somewhat reluctant to use their weapons close-up where they'll be most effective. The Korean fighting has borne this theory out.

So, reason the archers, why not attach a tank-killing charge of explosive to a huge arrow launched from a large bow? There is no flash or flare. The gunners are not revealed. Presto, they will wait until they're close, knowing they won't be spotted.

The theory may have some merits, but generally speaking it would seem rather tenuous. Perhaps some variant of this technique, using say, the cross-bow, might work. It's worthy of consideration anyhow. An archer, like most fanatic hobbyists is willing to try anything once.

The modern cross-bow utilizing an automobile spring is another example of a weapon designed by trial and error which conforms in theory as well. Analysis has shown this ancient machine to be perfectly designed according to the principles of physics even though the designers didn't know Newton from an apple.

Crossbow addicts are as enthusiastic as archers and claim even greater advantages for their weapon.

There is a potential use for both these weapons which till now has not even been considered. When spacial navigation becomes commonplace, a method of flipping a line or cord between space vessels, is imperative. This shooting can be done with some sort of a gun like those used in present-day life saving work, but in space only moderate forces are wanted. Perhaps the bow or the crossbow, with their relative simplicity will provide the answer.

It seems that no matter where you look you can find a relationship between what you might at first regard as totally unrelated. We haven't heard the last of crossbows or for that matter ordinary bows—nor will we, if the enthusiastic archers have their way!



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